

# Rural Sociology

VOLUME 23      DECEMBER 1958      NUMBER 4

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Categorizing the Adopters of Agricultural Practices

*Everett M. Rogers*

Research Problems on the Occupational Achievement Levels  
of Farm-Reared People ..... *A. O. Haller*

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*Howard E. Bracey*

Research Notes \* Book Reviews

Bulletin Reviews \* News Notes

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Official journal of the Rural Sociological Society

# RURAL SOCIOLOGY

*Published Quarterly*

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EVERETT M. ROGERS

## Categorizing the Adopters of Agricultural Practices

A method is suggested by which the adopters of agricultural practices may be classified into the five adopter categories of innovators, early adopters, early majority, late majority, and laggards. The criterion of classification may be either on the basis of (1) the time of adoption of a single new farm practice or (2) an adoption of farm practices scale.

Data taken from a 1955 study of 148 Iowa farm operators and from a 1957 study of 104 Ohio farmers show that adoption distributions over time are bell-shaped and approach normality.

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A MAJOR research area for rural sociologists in recent years has been the diffusion and adoption of agricultural practices by rural people. Findings as to the process by which new ideas are adopted, the characteristics of the early adopters, the sources of information about new practices, and the time pattern over which adoption takes place have been reported.

As a means of easy reference, various titles have been used for the categories of the adopters of agricultural practices. For example, a subcommittee of the North Central Regional Rural Sociology Committee has proposed the titles of "innovators," "community adoption leaders," "local adoption leaders," and "later adopters."<sup>1</sup> Other terms,

\*The original framework for this article was presented by the author as Journal Paper No. J-3035 of the Iowa Agricultural Experiment Station, Project 1236, at the Rural Sociological Society on September 5, 1956, at East Lansing, Michigan. The author acknowledges the advice of Harold A. Pedersen, Mississippi State College, and George M. Beal, Iowa State College, in the revision of the original paper. Much of the data in the present article is taken from Ohio Agricultural Experiment Station Project Hatch 166.

<sup>1</sup>North Central Regional Rural Sociology Subcommittee on the Diffusion of New Ideas and Farm Practices, *How Farm People Accept New Ideas* (Iowa Agr. Ext. Serv. Spec. Rep. 15; Ames, 1955), pp. 9-10.

such as "early adopters," "informal leaders," "non-adopters," "progress-ists," "conservatives," "traditionalists," and "diehards," have been utilized by various research workers. However, a review of the literature has disclosed that few research workers have been concerned with the development of standard criteria by which to classify the adopters of agricultural practices into these categories.

It is the purpose of this article to suggest a method by which farm people may be classified into meaningful adopter categories. It should be pointed out that the diffusion of new practices is a continuous datum in that different individuals adopt at different points in time. The partitioning of this continuum into discrete categories is simply a heuristic device. The case is similar to that of the continuum of socioeconomic status and the categories of social classes. The utility of this categorization comes mainly from the relative ease with which the concept of time of adoption may be communicated to lay audiences and "action" agents.

The adoption of a new practice entails a gradual shift in orientation from an old to a new practice. This adoption process may be viewed as a series of stages or steps progressively advancing from awareness (first hearing about the new practice) to adoption.<sup>2</sup> For the purpose of this writing, adoption will be regarded as the point in time at which a farm operator decides to continue using a new practice. As such, adoption is the time at which the adoption process is completed for a specific practice (that is, the fifth and last stage in the adoption process is reached).

Before considering possible criteria for the categorization of adopters, it is important to determine the characteristics that a series of categories should ideally possess. Jahoda and others<sup>3</sup> have proposed that a set of categories should be (1) *exhaustive* in order that all responses may be classified, (2) *mutually exclusive* so that a given response cannot ordinarily be placed in more than one category, and (3) derived from one *classificatory principle*.

#### NORMAL ADOPTION DISTRIBUTIONS

A general finding of past research is that the adoption of a practice follows a bell-shaped curve over time.<sup>4</sup> This type of distribution is essen-

<sup>2</sup>For a description of a proposed five-state adoption process, see the Subcommittee on the Diffusion of New Ideas and Farm Practices, *op. cit.*, pp. 4-6. For evidence as to the validity of this conceptualization, see George M. Beal, Everett M. Rogers, and Joe M. Bohlen, "Validity of the Concept of Stages in the Adoption Process," *Rural Sociology*, XXII (June, 1957).

<sup>3</sup>Marie Jahoda, Morton Deutsch, and Stuart W. Cook, *Research Methods in Social Relations* (New York: Dryden Press, 1951), p. 264.

<sup>4</sup>For example, see Robert M. Dimit, "Diffusion and Adoption of Approved Farm Practices in 11 Counties in Southwest Virginia" (unpublished Ph.D. thesis, Iowa State College, 1954), pp. 47-49; Eugene A. Wilkenning, *Acceptance of Improved Farm Prac-*

tially "S" shaped when plotted on a cumulative basis. If adoption curves are bell-shaped and approach "normal," there are useful implications for the categorization of adopters.

Perhaps an inquiry should be raised at this point as to why adoption curves might be expected to approach a normal distribution. It has generally been found that most human traits seem to be normally distributed, whether the trait be a physical characteristic such as height or a behavioral trait such as the learning of information as measured by test scores. Hence, we may expect a variable such as the degree of technological change, measured in terms of the time pattern over which individuals adopt farm practices, to be normally distributed also.

Allport<sup>5</sup> has postulated a J-shaped distribution for conformity behavior. The shape of this distribution would tend to be normal if both symmetrical halves of the distribution were considered, rather than just the right tail (as Allport pointed out). There are theoretical reasons for expecting adoption curves to be normal or nearly normal.

On the contrary, Ryan and Gross<sup>6</sup> found the adoption of hybrid corn to be essentially nonnormal and attributed this skewed distribution to the effect of influences from the interacting population. They believed that the personal influence exerted by the earliest adopters upon the later adopters caused a more rapid adoption to occur after the mean year of adoption. Griliches,<sup>7</sup> however, has recently completed a more extensive study of the adoption of hybrid seed corn. He used crop reporting information from the USDA Field Crops Statistics Branch and found that hybrid corn adoption closely followed the logistic curve, which is very similar to the normal curve over the usual range of data.

### DETERMINING NORMALITY

In order to determine the normality of adoption curves, data are taken from a number of research studies. The methods of analysis will be described in detail in the case of the adoption of one practice, 2,4-D weed spray.<sup>8</sup>

*tices in Three Coastal Plain Counties* (North Carolina Agr. Expt. Sta. Bull. 98; Raleigh, 1952), pp. 36-39; and Bryce Ryan and Neal C. Gross, "The Diffusion of Hybrid Seed Corn in Two Iowa Communities," *Rural Sociology*, VIII (1943), 15-24.

<sup>5</sup>Floyd H. Allport, "The J-Curve Hypothesis of Conforming Behavior," in Guy E. Swanson *et al.*, eds., *Readings in Social Psychology* (New York: Henry Holt, 1952), p. 238.

<sup>6</sup>*Ibid.*

<sup>7</sup>Zvi Griliches, "Hybrid Corn: An Exploration in Economics of Technological Change," *Econometrica*, XXV (Oct., 1957), 501-522.

<sup>8</sup>Data on the adoption of 2,4-D weed spray were obtained from interviews with the 148 farm operators residing in the trade area community surrounding a central Iowa village in 1955. The respondents were asked whether or not they had adopted 2,4-D weed spray and, if they had, to state the time (in years) at which they adopted it.

The normality of the adoption distribution for 2,4-D weed spray was determined by means of the Smirnov test.<sup>9</sup> The Smirnov goodness-of-fit test is a means by which the probability that an actual distribution may have been drawn from a normal distribution can be determined. The advantage of the Smirnov test over the chi-square goodness-of-fit test is that it is more powerful, that is, there is less likelihood of Type II error.<sup>10</sup>

The distribution of the 129 adopters of 2,4-D weed spray over time appeared to be essentially a bell-shaped, symmetrical distribution. The Smirnov test for goodness of fit indicated that the adoption rate of 2,4-D weed spray is normal. The maximum deviation from normality is 12.49 in 1949, which is less than the allowable deviation of 15.45 at the 5 per cent level of significance. There is not sufficient evidence that the adoption distribution deviates from normality.

Ryan and Gross<sup>11</sup> eliminated from their analysis of hybrid seed corn adopters the 64 farmers who had "started farming since the practice began its spread." Presumably these researchers discarded data from all farm operators who began farming either after the date at which the first respondent became aware of the practice (1924) or first adopted the practice (1927). In the present study, only the farmers who had begun farming after they were aware of the practice were eliminated from the analysis.<sup>12</sup> If they began farming after they became aware of the practice, their actual adoption date might have been postponed because they could not adopt the practice until they began farming. There were 17 of these beginning farmers who were eliminated from the 2,4-D spray adoption distribution. Elimination of these 17 farmers resulted in a distribution that was more nearly normal. The maximum deviation from normalcy is 10.68, which is less than the allowable deviation of 14.39 at the 5 per cent level of significance (Table 1).

Data regarding the adoption of antibiotic swine supplements were also secured in the Iowa study. The adoption distributions (1) for all 105 adopters and (2) for the 95 adopters remaining after the elimination of the 10 farmers who began farming after they were aware of the practice were both found to deviate significantly from normality (Table 1).

Data were taken from field studies (1) by Ryan<sup>13</sup> of the adoption of hybrid seed corn in Iowa, (2) by Dimit<sup>14</sup> of the adoption of the same

<sup>9</sup>The method by which this statistical test is computed is described by E. J. Massey, Jr., "The Kolmogorov-Smirnov Test for Goodness of Fit," *Journal of the American Statistical Association*, XLVI (March, 1951), 68-78.

<sup>10</sup>Type II error is accepting a hypothesis when it is false.

<sup>11</sup>Ryan and Gross, *op. cit.*, p. 17.

<sup>12</sup>It might be pointed out that this method resulted in a loss of 13.2 per cent of the data, while the method utilized by Ryan and Gross resulted in an elimination of 19.8 per cent.

<sup>13</sup>Bryce Ryan, "A Study in Technological Diffusion," *Rural Sociology*, XIII (1948), 273-285.

<sup>14</sup>*Op. cit.*

Table 1. Normality of adoption distributions for single practices

Practice	Percentage of adoption completed	Normality
	%	
2,4-D weed spray (all adopters) . . . . .	87	Normal
2,4-D weed spray (beginning farmers ex- cluded) . . . . .	87	Normal
Antibiotics (all adopters) . . . . .	89	Not normal*
Antibiotics (beginning farmers excluded) . . . . .	89	Not normal†
Hybrid corn (Iowa) . . . . .	100	Not normal*
Hybrid corn (Virginia) . . . . .	100	Not normal*
2,4-D weed spray (Ohio) . . . . .	76	Normal
Warfarin rat poison (Ohio) . . . . .	78	Normal

\*Deviation from normality is significant at the 1 per cent level of significance.

†Deviation from normality is significant at the 5 per cent level of significance.

practice in Virginia, and (3) by Rogers<sup>15</sup> of the adoption of 2,4-D weed spray and warfarin rat poison in Ohio.

Only the practices that were near complete adoption were tested for normality, as the adoption distributions for partially adopted practices would necessarily be nonnormal. All the adoption distributions were bell-shaped, and all approached normality, although half of those tested were found to deviate significantly from normality. Reasons for these inconsistent results are beyond the scope of the present article, although there seems to be some evidence that at least two factors are relevant: the intrinsic nature of the practice and the locale of the study.

Further research is needed to determine specifically why some adoption curves are normal and some are not.

#### ADOPTER CATEGORIZATION

Although the classification criterion of *time* of adoption has been utilized by most past researchers, the specific means by which time of adoption is measured has varied widely. Wilkenings<sup>16</sup> and other research-

<sup>15</sup>These data were secured in field interviews with a state-wide sample of 104 commercial farmers in Ohio in 1957 as part of Ohio Agricultural Experiment Station Project Hatch 166, "The Communication Process and the Adoption of Farm and Home Practices in Ohio."

<sup>16</sup>Eugene A. Wilkening, "Informal Leaders and Innovators in Farm Practices," *Rural Sociology*, XVII (1952), 272-275. This criterion was also utilized by C. Paul Marsh and A. Lee Coleman, "Farmers' Practice-Adoption Rates in Relation to Adoption Rates of 'Leaders,'" *Rural Sociology*, XIX (1954), 180-181. It should be pointed out that "informal leaders," "adoption leaders," or "technological influen-

ers have used various sociometric techniques to label certain adopters as "informal leaders." The actual year of adoption of a new practice or practices would appear to be one of the best methods of using time of adoption for classification purposes. Wilkening<sup>17</sup> used the actual year of adoption in order to classify his farm operators as "community innovators" and "neighborhood innovators." Gross<sup>18</sup> classified the adopters of hybrid seed corn into four categories on the basis of year of adoption.

It was previously pointed out that theoretically adoption distributions might be expected to be normal and that in a number of empirical cases adoption distributions were either normal or closely approached normality. The normal distribution has two parameters, the mean ( $x$ ) and the standard deviation ( $\sigma$ ), which may be used to divide the distribution into five areas. These five areas under the normal curve are functionally labeled as innovators, early adopters, early majority, late majority, and laggards. These categories and the approximate percentage of the adopters that are included in each category are located on a normal frequency distribution in Figure 1. If this distribution were plotted on a cumulative basis, it would approach an "S" shape.

The area lying to the left of the mean year of adoption minus two standard deviations ( $x - 2\sigma$ ) would include the first 2.5 per cent of the farmers to adopt a new practice (innovators) as is shown in Figure 1. The next 13.5 per cent of the adopters would be included between  $x - \sigma$  and  $x - 2\sigma$  and are labeled "early adopters." At the mean year of adoption minus one standard deviation ( $x - \sigma$ ), a point of inflection<sup>19</sup> occurs. At this point, adoption ceases to increase at an increasing rate and begins to increase at a decreasing rate (and level off). Between this inflection point and the mean year of adoption, 34 per cent of the adopters are included in the "early majority" category.

Between the mean and the other inflection point (at  $x + \sigma$ ) (where adoption begins to decrease at a decreasing rate) are included 34 per cent of the adopters labeled as "late majority." The last 16 per cent of the farmers to adopt a new practice (to the right of the inflection point at  $x + \sigma$ ) are labeled as "laggards."<sup>20</sup> The two parameters of the normal distribution could be used to divide a continuous variable into any number of categories. The five categories used in the present case are an arbitrary number.

tials" are really categories indicating degree of influence or leadership in the communication of technological practices. This dimension probably does not completely overlap with time of adoption. For instance, the innovator is the earliest to adopt but may not be regarded by his neighbors as a valid source of information or advice.

<sup>17</sup>Wilkening, *op. cit.*, pp. 272-273.

<sup>18</sup>Neal C. Gross, "The Diffusion of a Culture Trait in Two Iowa Townships" (unpublished Master's thesis, Iowa State College, 1942).

<sup>19</sup>R. L. Anderson and T. A. Bancroft, "Statistical Theory in Research" (New York: McGraw-Hill, 1952), p. 25.

<sup>20</sup>It must also be recognized that for practices that do not reach 100 per cent adoption, there will be a sixth category of "nonadopters."



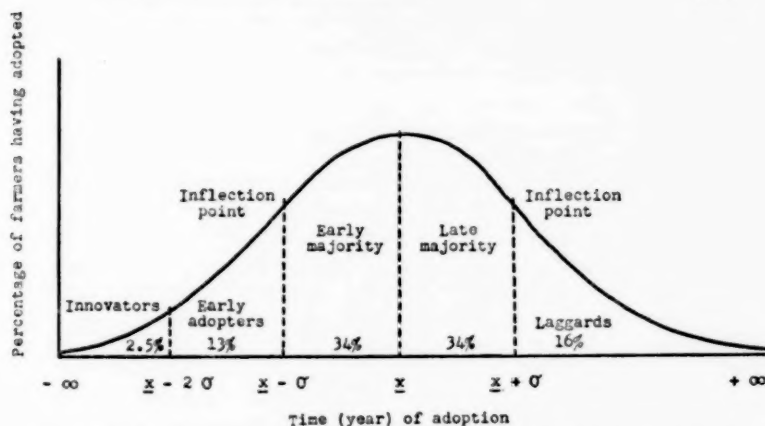


Figure 1. Adopter categorization on the basis of an adoption frequency distribution

### STANDARD SCORES

The foregoing method of adopter categorization is essentially on the basis of "standard scores."<sup>21</sup> A standard score is computed by subtracting the mean ( $\bar{x}$ ) from an observation ( $X_i$ ) and dividing by the standard deviation ( $\sigma_x$ ) of the distribution.<sup>22</sup> Where  $U_i$  represents a standard score, the formula may be expressed as:

$$U_i = \frac{X_i - \bar{x}}{\sigma_x}$$

A standard score is a "relative" type of score which, in effect, expresses the individual's position in relation to other members of a distribution. For example, an individual's year of adoption of a new practice when expressed in standard score form would indicate the individual's relative position in the distribution of adoption dates (of the other farmers in the study).

An advantage of standard scores is that the measuring unit is "pure," or free from the original unit of measure. For example, the time of adoption of a farm practice, such as using hybrid seed corn, may be mathematically compared with a widely different practice, such as using

<sup>21</sup>The use of standard scores as a means of classifying the adopters of a new practice has been utilized by Paul R. Mort and Truman M. Pierce, *A Time Scale for Measuring the Adaptability of School Systems* (New York: Metropolitan School Study Council, 1947). These authors divided school systems that adopted new practices into three categories (pioneer schools, early followers, and late followers) on the basis of the time of their adoption of new educational practices.

<sup>22</sup>For example, Farmer A adopted 2,4-D weed spray in 1948. The mean year of adoption is 1949 and the standard deviation of the adoption dates for 2,4-D weed spray is 2 years. The standard adoption score for Farmer A is 1948 minus 1949 divided by 2 which equals  $-0.5$ . This would place Farmer A in the early majority category.



commercial fertilizer. This advantage is important when constructing a composite adoption score composed of many practices. It is possible to add, subtract, or place weightings on each adoption item when it is expressed in standard form, even though the interval of time in which the adoption of each practice took place may vary.

The finding that all adoption distributions are not normal does not rule out the method of standard scores. Even in a skewed distribution, the use of standard scores may be utilized (with discretion) as the transformation of the raw data into standard score form tends to shape the distribution toward normality. In addition, little change is made in the number of cases appearing at different standard deviation units even when there is some departure from the normal distribution.<sup>23</sup>

### ADOPTION OF FARM PRACTICES SCALES

Evidence has already been presented that the adoption of a single practice over time will approach a normal distribution. The distribution of scores on an adoption scale, composed of the adoption of a number of new practices, will also approach normality. The normality of these adoption scores facilitates the categorization of individuals into the five adopter categories of innovators, early adopters, early majority, late majority, and laggards.

A question might be raised as to whether an adoption scale (composed of the adoption or nonadoption of a number of practices) measures the general tendency to adopt new practices at an earlier point in time. The answer is "yes" when we consider that at any one point in time (the time at which the adoption scale is administered) the farm operator who has adopted, for example, twelve practices has generally tended to adopt practices at an earlier date than the individual who has adopted six practices. By determining only whether each farm practice in a scale is adopted versus nonadopted, only a rough (and indirect) estimate of the time of adoption of each practice is secured. More precise information could be obtained by inquiring as to the estimated date that each practice was adopted and by giving greater credit (a higher score) for adopting a practice at an earlier date. Most past adoption scales have not been of this more precise nature.<sup>24</sup> The researchers utilizing these adoption scales did not claim that they measured the general tendency to adopt new practices at an earlier

<sup>23</sup>James E. Wert *et al.*, *Statistical Methods in Educational and Psychological Research* (New York: Appleton-Century-Crofts, 1954), p. 56.

<sup>24</sup>Lionberger, however, did secure information from his respondents not only as to whether or not they had adopted each of ten practices but also *when* they had adopted each practice. More credit was given to the individuals who had adopted practices at an earlier date. See Herbert F. Lionberger, *Information-Seeking Habits and Characteristics of Farm Operators* (Missouri Agr. Expt. Sta. Bull. 581; Columbia, 1955).

point in time, although the findings of the present article suggest they would have been justified in doing so.

A "simple" adoption scale was computed which credited an individual with one point for adoption and zero points for nonadoption of each practice.<sup>25</sup> A "standard adoption scale" was also computed which gave more credit to an individual who had adopted a practice at an earlier date. The coefficient of correlation between these two different types of adoption scales would be high if they both measured a similar tendency to adopt new practices at an earlier point of time. Correlation is  $+ .90$ , which is more than that required to be significantly different from zero at the  $.001$  level of probability.<sup>26</sup> Although only 81 per cent of the variation in one score is accounted for by variation in the other score, this finding provides evidence that even the simple type of adoption scale measures both the number of practices adopted and the time at which they were adopted. The advantage of the standard adoption scale is that fewer practices need to be included to measure the time-of-adoption dimension with equal precision.

The exact weighting that should be assigned to the year of adoption of each practice in a standard adoption scale may be computed by means of the method of standard scores.<sup>27</sup> This would guarantee equivalent weightings for the adoption of each practice independent of the span of years covered by its adoption period.

#### NORMALITY OF ADOPTION SCALE

It was mentioned previously that if the adoption distributions for single practices approach normality, then a distribution of adoption scores should also approach normality. In order to test this assumption, data were taken from the 1957 Ohio study described earlier to construct an adoption scale composed of 25 new farm practices.

The Smirnov goodness of fit test was utilized to test the hypothesis that the adoption scores are normally distributed. The maximum deviation from normality is 12.84 which is less than the 13.34 allowable deviation at the 5 per cent level of significance. There is not sufficient evidence to indicate that the distribution of the 104 adoption scores is not normal.<sup>28</sup>

<sup>25</sup>This adoption scale was composed of 25 recent farming practices. Data were secured from the 104 farm operators included in the 1957 Ohio field study mentioned earlier.

<sup>26</sup>A similar relationship of  $+ .79$  was found in the Iowa study mentioned earlier.

<sup>27</sup>For greater ease of statistical manipulation, one type of standard score, the "sten" score, might be used. See Charles H. Coates and Alvin L. Bertrand, "A Simplified Methodology for Developing Multi-Measure Indices as Research Tools," *Rural Sociology*, XX (1955), 132-141.

<sup>28</sup>The adoption scores in the Iowa study were also normally distributed. Maximum deviation from normality is 11.74, which is less than the 16.49 allowable deviation at the 5 per cent level of significance.

If a distribution of adoption scores is normal, then the individuals included in each of the five adopter categories may be determined on the basis of standard deviation units from the mean in a manner similar to that depicted in Figure 1 for a single practice. However, the characteristic measured is the time of adoption of farm practices rather than the time of adoption of a single practice.

The adoption scale for 25 practices in the Ohio study could range from zero to ten. The distribution of adoption scores was found to have a mean of 4.32 and a standard deviation of 0.59. The adopter category of innovators would include the individuals with adoption scores above 5.50 ( $x + 2\sigma$ ). The early adopters would include the 14 farm operators (13.5 per cent) with adoption scores between 4.91 ( $x + \sigma$ ) and 5.50. The adoption score limits for other adopter categories could be computed in a similar manner.<sup>29</sup>

### CONCLUSIONS

The distributions of both (1) single practices over time and (2) adoption of farm practices scores were found to be bell-shaped and to approach normality.

Three principles of categorization were suggested near the beginning of this article. The use of time of adoption as the criterion for classifying adopters into categories fulfills each of these requirements. The categories are exhaustive, mutually exclusive, and are derived from one classificatory principle (time of adoption). The conclusion of this article is that the best criterion for classifying the adopters of agriculture practices is the *time* at which they adopt a practice or practices.

<sup>29</sup>Some evidence of the validity of this categorization was also secured. Each respondent was asked whether he considered himself (1) far ahead of the average, (2) ahead of the average, (3) average, (4) behind the average, or (5) far behind the average in adopting new farm practices. Correlation with adoption scores is +.35, which indicates that individuals perceive their relative adopter categories with some accuracy. In the 1955 Iowa study, correlation between self-ratings and adoption scores was +.69. The self-ratings of innovators and laggards were most accurate.

A. O. HALLER

# Research Problems on the Occupational Achievement Levels of Farm-Reared People

Research has shown that farm-reared people have low levels of occupational achievement in the nonfarm world. Lipset has tried to explain this by pointing to the retarding effect of limited occupational and educational alternatives (supposedly characterizing rural life) on levels of occupational and educational aspiration. In turn, Lipset hypothesizes that levels of occupational and educational aspiration account for levels of occupational achievement. The present paper summarizes the researchable assumptions of Lipset's explanation, reviews data testing several aspects of the explanation, presents new data testing other aspects of the explanation, and presents a test of an alternative to one element of the explanation. The explanation is found to be only partially correct. It is valid in that levels of occupational achievement are correlated with levels of educational and occupational aspiration. It is invalid in that farm-nonfarm differences in levels of educational aspiration are not large enough to explain much of the variation in levels of occupational achievement, and it is invalid in that farm plans are found to explain all of the apparent relationship of farm residence to levels of occupational aspiration.

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RESEARCH has amply demonstrated that the men reared on farms tend to have less success on the job market than do those reared elsewhere. This was shown by Ammon in Berlin, Germany, in 1895,<sup>1</sup> by

\*Journal Article No. 2147 of the Michigan State Agricultural Experiment Station. The writer wishes to express his gratitude to the school officials of Lenawee County and to his assistants, Arturo de Hoyos and Warren Sauer.

<sup>1</sup>Otto Ammon, *Die Gesellschaftsordnung und Ihre Natürlichen Grundlagen* (Jena: Verlag von Gustav Fischer, 1895), p. 145. See also Pitirim A. Sorokin, *Social Mobility* (New York: Harper, 1927), pp. 144 ff. and 451; and Pitirim A. Sorokin, Carle C. Zimmerman, and Charles C. Galpin, *A Systematic Source Book in Rural Sociology*, III (Minneapolis: University of Minnesota Press, 1932), 531.

Beers and Heflin in Lexington, Kentucky, in 1945,<sup>2</sup> by Boalt in Stockholm, Sweden, in 1954,<sup>3</sup> by Lipset in Oakland, California, in 1955,<sup>4</sup> and most recently, by Freedman and Freedman in the United States as a whole in 1956.<sup>5</sup> Farm areas have contributed a large proportion of the nonfarm population of the nation and of the world. Today about one-third of the nonfarm population of the United States were reared on farms.<sup>6</sup> Doubtless this proportion will decrease with the continuing decrease in the farm population (now down to 12 per cent of the total population of the United States).<sup>7</sup> Even so, basic research designed to account for, and thus control, the occupational success and failure of the farm-reared is important for two reasons: (1) The farm-reared probably will continue to constitute a numerically large segment of the American labor force, even though their proportionate contribution is lower than in previous decades. Research is needed to determine the factors that reduce the potential occupational achievement levels of these people, both to help in their personal adjustments and to reduce the talent loss in society. (2) The fact that the farm-reared in certain other countries also have had a relatively low degree of success on the job-market<sup>8</sup> suggests that the problem may be widespread. In particular, societies hoping to change their economies from agriculture to industry may have a serious problem of changing the life orientation of their people so that effective industrial labor forces are developed. Basic research on the factors producing differential levels of achievement in the occupational structure of industrial societies such as the United States may have cross-cultural usefulness to the people of the so-called "underdeveloped areas."

### PRESENT THEORY

To date, Lipset has provided the nearest approach to a theory accounting for the farm-reared person's low levels of occupational achievement.<sup>9</sup> The general form of his explanation appears to be the social action theorist's proposition that differential human behavior in complex social systems is the result of differential motivation, which,

<sup>2</sup>Howard W. Beers and Catherine Heflin, *Rural People in the City* (Kentucky Agr. Expt. Sta. Bull. 478; Lexington, 1945).

<sup>3</sup>Gunnar Boalt, "Social Mobility in Stockholm," in *Transactions of the Second World Congress of Sociology, II* (London: International Sociological Association, 1954), 67-73.

<sup>4</sup>Seymour Martin Lipset, "Social Mobility and Urbanization," *Rural Sociology*, XX, 220-228.

<sup>5</sup>Ronald Freedman and Deborah Freedman, "Farm-Reared Elements in the Non-farm Population," *Rural Sociology*, XXI (1956), 50-61.

<sup>6</sup>*Ibid.*, p. 52.

<sup>7</sup>*Estimate of the Farm Population, April 1950 to 1957 Series Census-AMS [P-27], No. 24; Washington, D.C.: U.S. Department of Commerce, Bureau of the Census, 1957).*

<sup>8</sup>Ammon, *op. cit.*; Boalt, *op. cit.*

<sup>9</sup>Lipset, *op. cit.*

in turn, is the result of the positions occupied by the actors during their preadult socialization period.<sup>10</sup> His specific formulation is that certain elements of the structure of rural society—few immediately visible occupational roles, relatively poor elementary and secondary schools, and no university-level schools—limit the rural youth's awareness of the range of nonagricultural occupational alternatives and of the educational means for achieving the higher positions. The rural youth's limited awareness depresses his levels of educational and occupational aspiration. Low levels of educational and occupational aspiration thus generated result in low levels of occupation achievement.

### PROBLEM AND METHODS

The purpose of this paper is to review the existing evidence bearing on the assumptions of Lipset's explanation, to present new data concerning some of these assumptions and alternative explanations, and to indicate areas where additional research is needed.

The assumptions not tested by Lipset are as follows: (1) the level of occupational achievement is positively correlated with the level of educational and occupational aspiration; (2) farm residence is negatively correlated with the level of educational aspiration; (3) farm residence is negatively correlated with the level of occupational aspiration; and (4) the same social and psychological factors are responsible for the low levels of achievement of farm-reared persons in both agricultural and industrial societies.

The data for this study are drawn from several reports, both published and unpublished. New data were collected during 1957 in Lenawee County, Michigan. The subjects are the 442 seventeen-year-old boys of the county who were born between July 1, 1939, and June 30, 1940, and who were in school during the testing period. Ideally, all of the age group in the county would have been tested. However, about 12 per cent who were no longer in school were omitted. Follow-up studies showed that about five out of six of the latter are sons of farmers. The consequent underrepresentation of farm boys may influence certain of the tests slightly but probably not appreciably. Lenawee County was selected as the site for three reasons: (1) It approaches the rural sociologist's ideal type of rural community, having a medium sized city—Adrain, population about 20,000—as the geographical, economic, and administrative center, having satellite villages and towns, and having an agricultural hinterland. (2) It has an evenly divided farm, rural nonfarm, and urban population. (3) Its light industry and proximity to the Detroit-Toledo industrial area provide youth with a diversified set of occupational alternatives.

*Level of occupational aspiration* is one of the variables used. This is

<sup>10</sup>Talcott Parsons, Edward A. Shils, and James Olds, "Values, Motives, and Systems of Action," in Talcott Parsons and Edward A. Shils, eds., *Toward a General Theory of Action* (Cambridge, Mass.: Harvard University Press, 1951), pp. 53 ff.



taken from a forced-choice instrument developed to estimate the occupational prestige level desired by the subject while minimizing the non-prestige effects of his particular occupational choice.<sup>11</sup> It consists of eight questions regarding job preferences. Each question has ten ranked occupational alternatives scored from zero to nine inclusive, among which the respondent chooses one. The scores for rating the alternatives in each of the eight questions were drawn systematically from the entire range of the North-Hatt occupational prestige continuum.<sup>12</sup> For various reasons, ten of the original occupational titles were not included. Possible total scores range from zero to seventy-two points. The median score was 35. In the analysis, subjects falling above the median were classified as having high levels of occupational aspiration and those below the median were classified as having low levels of occupational aspiration. Subjects who scored 35 were arbitrarily assigned to one of the two categories. *Plans regarding farming* were taken from an open-ended question asking the respondent what occupation he plans to follow; respondents were classified either as *planning to farm* or *not planning to farm*. College plans were taken from a series of questions designed to tap the students' intentions regarding entrance into a regular four-year college or university; respondents were classified either as *planning to attend college* or *not planning to attend college*. *Farm-nonfarm residence* is the last of these variables; respondents whose fathers were at least part-time farmers and who reside on farms were classified as *farm residents* and all others were classified as *nonfarm residents*.

### EMPIRICAL EVIDENCE

*Data bearing on Lipset's explanation:* The first assumption in Lipset's explanation is that level of occupational achievement is positively correlated with level of educational and occupational aspiration. This assumption is partially supported by longitudinal data correlating young adult levels of occupational achievement with adolescent levels of aspiration. The correlation of level of occupational achievement to level of educational aspiration is  $r = +.17$ . The correlation of level of occupational achievement to level of occupational aspiration is  $r = +.46$ .<sup>13</sup>

The second assumption in Lipset's explanation is that level of educational aspiration is negatively correlated with farm residence. In general, research tends to refute this assumption. One study, conducted on youth in the final year of Wisconsin's high schools, shows that farm-reared boys have slightly lower levels of educational aspiration than

<sup>11</sup>A. O. Haller, *Occupational Aspiration Scale* (East Lansing: Michigan State, 1957).

<sup>12</sup>National Opinion Research Center, "Jobs and Occupations: A Popular Evaluation," *Opinion News*, IX (Sept., 1947), 3-13.

<sup>13</sup>Data compiled by William H. Sewell and A. O. Haller, on file at the University of Wisconsin. It is anticipated that the results of this study will be published in the near future.



do their nonfarm peers,<sup>14</sup> but the observed differences are not large enough to account for the achievement differences noted by social scientists.<sup>15</sup> Another study using the same sample shows that planning to farm (which is rare among nonfarm residents) sharply reduces levels of educational aspiration.<sup>16</sup> This implies that the educational aspiration differences which have been noted between farm and nonfarm residents may be due to the belief that youth who plan to farm do not need college training, rather than to the supposed limited alternatives of rural society operationally summarized by the "farm resident" classification.

Lipset's third assumption is that level of occupational aspiration is negatively correlated with farm residence. This hypothesis was rejected for Wisconsin farm youth who do not plan to farm.<sup>17</sup> However, this was not a thorough test because it failed to take into account the levels of occupational aspiration of youth who plan to farm. Data from the Lenawee County study provide a more complete test of this assumption. At first examination these data appear to support the notion that farm residence reduces levels of occupational aspiration. A chi-square test comparing the levels of occupational aspiration of farm and nonfarm residents shows the apparent relationship to be statistically significant.<sup>18</sup> First appearances require critical evaluation. Planning to farm depresses levels of educational aspiration, and such plans might indirectly depress levels of occupational aspiration. Boys who decide not to go to college as a result of planning to farm may give low aspiration responses to the index of level of occupational aspiration because they recognize that the college training they have denied themselves would be needed for high-level nonfarm jobs. For this reason, farm plans were controlled while retesting the relationship of level of occupational aspiration to farm-nonfarm residence. In this instance, the chi-square test is not significant (computed by summing the chi-square values and degrees of freedom from the two component 2 x 2 tables).<sup>19</sup> This means that the apparent relationship of low levels of occupational aspiration to farm residence is due to the presence in the farm group of a large

<sup>14</sup>A. O. Haller and W. H. Sewell, "Farm Residence and Levels of Educational and Occupational Aspiration," *American Journal of Sociology*, LXII (1957), 407-411.

<sup>15</sup>Ammon, *op. cit.*; Beers and Heflin, *op. cit.*; Boalt, *op. cit.*; Lipset, *op. cit.*

<sup>16</sup>A. O. Haller, "The Influence of Planning to Enter Farming on Plans to Attend College," *Rural Sociology* (1957), 137-141.

<sup>17</sup>Haller and Sewell, *op. cit.*

<sup>18</sup>The zero-order chi-square values are calculated according to the standard formula,  $X^2 = \sum \frac{(f_o - f_e)^2}{f_e}$ . See G. Udny Yule and M. G. Kendall, *An Introduction to the Theory of Statistics* (13th ed.; London: Charles Griffin and Co., 1948), pp. 413-433, esp. 416.

<sup>19</sup>George W. Snedecor, *Statistical Methods* (4th ed.; Ames: Iowa State College Press, 1946), pp. 188-189; and Yule and Kendall, *op. cit.*, p. 426.

number who plan to farm. Thus Lipset's third assumption is not valid in Lenawee County because the low levels of occupational aspiration apparently associated with farm residence (and the social structure differences implied by it) are actually due to another variable, planning to farm.

Lipset's fourth assumption is that the same social and psychological factors are responsible for the low levels of occupational achievement of farm-reared people in both agricultural and industrial societies. The research summarized and reported above shows that even though occupational achievement level is correlated with educational and occupational aspiration levels, the other aspects of his hypothesis find little support among the relatively sophisticated farm people of Wisconsin and Lenawee County, Michigan. However, it may be that Lipset's explanation will be found to be valid in agricultural societies. If this prove to be true (and as yet there appears to be no published research demonstrating it), it would mean that the causes of low occupational achievement of the farm-reared differ according to the type of society. This suggests that societies in different stages of industrialization may need to use different tactics in their effort to make industrial workers out of agricultural people.

Thus in general, research supports the assumption that level of occupational achievement is positively correlated with level of educational and occupational aspiration but fails to support the contention that the limited educational and occupational alternatives supposedly characterizing farm areas produce low levels of educational and occupational aspiration. These conclusions are valid only for postwar rural life in the test areas of Wisconsin and Michigan and presumably other rural areas having a similar degree of world awareness. They are untested in genuinely agricultural societies.

*A test of an alternative hypothesis:* The aim of all theoretical research is the formulation and verification of explanatory hypotheses. Inasmuch as some of the main elements of Lipset's explanation have been rejected, it is desirable to try to replace them with verified alternatives. The source most readily available is to be found in the reasoning suggesting the variable which, when controlled, dictated the rejection of Lipset's explanation. This crucial variable is the plan to enter farming. In one Wisconsin study it was shown that planning to enter farming greatly reduces level of educational aspiration,<sup>20</sup> and in the Lenawee County study it was shown that planning to farm, which is characteristic of many more farmers than nonfarmers, accounts for practically all of the farm-nonfarm variation in level of occupational aspiration. In the latter instance, farm plans were controlled because, it was reasoned, youth who plan not to attend college as a result of a desire to farm may well recognize that they have thus blocked their chances of high achievement

<sup>20</sup>A. O. Haller, "The Influence of Planning to Enter Farming on Plans to Attend College," *op. cit.*

in the nonfarm occupational world. If this be the case, they doubtless would indicate low levels of occupational aspiration when tested. In other words, if the boy who plans to farm believes college is not needed for farming, he will not plan to enter college; then when asked about nonfarm jobs, he would adjust his level of aspiration downwards so that it accords with his low level of educational aspiration. Thus, the low level of occupational aspiration could be due to a low level of educational aspiration.

This is itself a testable proposition which could serve as the alternative to Lipset's explanation. Verification of the hypothesis could provide the missing element of a complete explanation of the low levels of occupational achievement; rejection of the hypothesis will clear the way for the formulation and testing of new hypotheses. This may be tested by controlling college plans while testing the association of level of occupational aspiration to plans regarding farming. If the influence of planning to farming on level of occupational aspiration is indeed a function of college plans there should be no significant association of level of occupational aspiration to farm plans among those planning to attend college or among those not planning to attend college. Data testing this hypothesis are presented in Table 1. The null hypothesis must be rejected, for the chi-square value for each of the two sections

Table 1. Relation of plans regarding farming to level of occupational aspiration scores, by college plans

Level of occupational aspiration scores	Plans regarding farming	
	To farm	Not to farm
Planning to attend college		
High . . . . .	8	150
Low . . . . .	14	47
All . . . . .	22	197
$\chi^2 = 15.57 \quad d.f. = 1 \quad P < .001$		
Not planning to attend college		
High . . . . .	6	54
Low . . . . .	34	121
All . . . . .	40	175
$\chi^2 = 4.07 \quad d.f. = 1 \quad P < .05$		
$\Sigma \chi^2 = 19.64 \quad d.f. = 2 \quad P < .001$ (no answer = 8).		

of the table is significant beyond the .05 level. Thus, one alternative to Lipset's explanation is unacceptable. The depressing effect of farm plans on levels of occupational aspiration cannot be attributed to plans regarding college.

The factors underlying the influences of farm plans on levels of occupational aspiration are apparently more complex than present hypotheses suggest. The association of levels of occupational aspiration to farm plans is not simply due to the farm youth's recognition of the role of advanced education in high level occupational achievement. Additional research on personality and social situational factors will be needed before a valid theory explaining why farm plans depress levels of occupational aspiration can be formulated. In turn, such a theory in conjunction with the valid parts of Lipset's explanation may help account for the poor performance of farm people in the labor market.

But the society within which these hypotheses are being tested is not typically agricultural. Unlike many other nations, modern America is a great urban society in which agriculture stands in an interdependent relationship with other segments of the total social structure and in which farmers have access to most of the sources of knowledge available to the other segments of the society. This is especially true in the North, in which the test sites of Michigan and Wisconsin lie. We need to replicate these studies, to retest Lipset's hypothesis, and to formulate and test new hypotheses in peasant societies. A general theory of the adaptation of farm people to urban-industrial society will not be possible until this is done.

## **Local Government as Viewed by Fringe Residents**

This study is an exploration of the attitudes toward and knowledge about local government on the part of fringe residents in the urbanized area of Flint, Michigan. Data were drawn from 413 interviews addressed to a probability sample of household heads living in the fringe in 1956. A general dissatisfaction with available services and recognition of the essentially urban character of the fringe prevailed. Judgments of the merits of township officials and of the quality of township government were equivocal. Yet there was a pronounced preference for seeking a solution to service needs through the township government as presently constituted. Township incorporation and annexation were rejected by all but a small minority. Further probing revealed that residents had but slight knowledge of their local governments. It is tentatively concluded that fringe residents, at least in the Flint area, are not well enough informed to make mature judgments about the governmental forms and procedures needed to deal with local problems.

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ONE of the arguments commonly heard in defense of the preservation of the many small governmental units found on the fringes of metropolitan centers is that a personal and direct relationship exists between such governments and their citizens. The latter, therefore, are said to be active and responsible in the exercise of their citizenship. This line of reasoning is advanced to show a contrast with the situation in large cities. Whether or not the contention is true is, after all, an empirical question. In view of the multiplicity of local governments and their important bearing on the problems of metropolitan areas, an attempt to explore the matter, if only with a single case, seems to be in order.

In an effort to determine what fringe residents in the Flint metropolitan area think and know about their local governments, a sample

\*The authors wish to acknowledge their indebtedness to Professor Arthur W. Bromage for his helpful suggestions.

survey of household heads was conducted in the fall of 1956. The probability sample was designed to give every household in the fringe part of the urbanized area an equal chance of being included in the approximately 2 per cent to be interviewed. A response rate of 86 per cent of the total sample yielded 413 completed interviews. The interview, which occupied 30 to 45 minutes, was composed of a series of closely related questions pertaining to appraisals of, knowledge about, forecasts for, and participation in local government. The returns provide a relatively unique body of information on a topic of major importance to the integration of metropolitan government.

The area under study encompasses a densely settled population contiguous to a core city under the jurisdiction of several different units of local government. However, it has not yet developed to the stage of multiple incorporations. The fringe contains a population of nearly 75,000 residing in four unincorporated townships. This population, although densely settled just beyond the limits of the core city, lacks the basic urban-type services. The study area is also composed of a number of small school districts independently operated, nearly all of which attempt to provide an educational program through the secondary level, even though they are entirely residential in character and have a very small school population.<sup>1</sup> The sample area contains the following local units of government: 4 townships, all or parts of 17

*Table 1.* Comparison of services: city and fringe as evaluated by fringe residents

Service	Attitude toward service				Total
	Better in fringe than in city	About the same in both areas	Better in city than in fringe	Don't know and no ans.	
	%	%	%	%	%
Water	39.7	32.2	25.9	2.2	100.0
Education	26.9	54.0	14.0	5.0	100.0
Police	10.2	47.5	39.5	2.8	100.0
Streets (local)	9.4	30.0	58.1	2.5	100.0
Fire	7.5	48.4	41.6	2.4	100.0
Garbage	6.8	73.6	17.9	1.7	100.0
Sewage disposal	3.9	25.4	69.5	1.2	100.0
Street lighting	1.5	11.1	86.2	1.2	100.0

<sup>1</sup>Several of the high schools in the area have an enrollment of less than one hundred and fifty students.

different school districts, one so-called metropolitan district for water and sewage, which serves only one small population cluster, and the county government.

A useful point of departure is the appraisal by fringe residents of the public or governmental services they receive in comparison with the services available in the city of Flint. In Table 1 it is to be observed that only water and education are thought to be better in the fringe than in the central city. The evaluation of water likely reflects the general distaste for the heavily chlorinated water of Flint. Recent school district consolidation and liberal school district financing from sales tax rebates to rural areas, as well as federal aid in defense areas for construction, have given the fringe area schools and school programs that compare favorably with those in the large city. All other services are believed to be better in the city than in the fringe. Despite the higher comparative evaluation placed on city services, police, fire, and garbage disposal are felt by the largest proportion to be of equal quality in both places. The judgments in these three instances are so at odds with any objective comparison which might be made that they suggest a very low level of expectation on the part of fringe residents.

The township form in Michigan has not been altered substantially in more than a century, though extraordinary population growth and urbanization have taken possession of fringe areas. This fact, together with the evaluation of present-day services, leads one to surmise that the fringe population is ready for a change in governmental organization. Accordingly, household heads were asked: do you think conditions in this area have reached a point where a greater amount of governmental activity is required? To this question, 60 per cent answered in the affirmative, while 33 per cent gave negative answers. A majority (52 per cent) of the respondents also expressed the view that the problems and needs of the fringe area do not differ from those of the central city. To another question, 60 per cent answered that there is no governmental service performed in the central city which is not needed in the fringe. There is no doubt that residents are aware of the problems in the fringe and appreciate their essentially urban character.

Recognition of problems and of a need for more effective government, however, is not to be construed as an unrestrained criticism of the existing governmental organization in the fringe area. For example, while 48 per cent of those interviewed asserted that having a number of small governmental units was less efficient than a single centralized authority, 44 per cent of the household heads held a contrary view. And, although a majority (52 per cent) agreed that a multiplicity of units was wasteful, a large minority (42 per cent) denied the wastefulness of the prevailing situation. In this connection, it is noteworthy that more than half of the respondents expressed the belief that the size of government affects the way it operates. Most of the responses clustered



around negative aspects of bigness. Frequent references were made to "red tape," inefficiency, and lack of contact with the people.

The rather qualified attitude that may be inferred from the responses to the need for more government, on the one hand, and to the questions concerning efficiency and wastefulness of many small governmental units, on the other hand, argues for a deeper probing of the attitudes toward local government. This was done through a series of questions dealing with perceptions of local government as compared with central city government. The results from these questions are shown in Table 2.

In general, these data appear to reveal a positive attitude toward

*Table 2.* Attitude of residents toward township government as compared with city of Flint

Issues	Township compared to city of Flint				Total
	More in twp.	About same in both areas	Less in twp.	Don't know and no ans.	
	%	%	%	%	%
Relative value of talking to officials	39.2	34.1	15.7	10.9	100.0
Extent officials are aware of problem in neighborhood	34.9	44.8	14.0	6.3	100.0
Extent officials are concerned with the individual	33.4	43.8	14.3	7.4	100.0
Extent people have a say in running government	31.5	48.7	13.6	6.3	100.0
Relative interest of officials in neigh- borhood	24.7	40.7	25.7	9.0	100.0
Relative economic burdensomeness of government	15.5	30.3	47.2	7.0	100.0
Extent government is controlled by special interest	13.3	37.8	37.5	11.4	100.0
Relative competence of government officials	12.6	64.6	13.8	9.0	100.0
Extent government exerts control over individual	9.9	40.2	40.0	9.9	100.0

township government and officials, and a negative attitude toward central city government. But this conclusion depends on how one chooses to interpret the results. For example, the largest proportion of respondents (39 per cent) believe more may be gained by talking with township officials than by discussing problems with officials of the Flint government. On the other hand, almost 50 per cent feel either that there is no difference in the officials of the two areas or that less is to be gained by talking with township officers. A substantial majority of those who answered the question, in other words, do not believe that township officials are any more responsive to individual problems than are officials in the central city. A similar interpretation may be made of the distribution of responses to the questions having to do with official awareness of neighborhood problems, the government's concern with individuals, and the direct influence individuals may exert on government. Still, in all four instances a small minority ranks the township government low in these respects. With reference to the governmental interest in the neighborhood, the answers are equivocal. A noteworthy finding is that almost two-thirds of the sample were unable to distinguish between township and central city officials relative to their competence. In matters of economic burdensomeness, the influence of special interest groups on government, and the controls imposed by government upon the people, the central city is viewed least favorably, but only by a minority in each case. Thus, while attitudes toward township government are most favorable, they are not overwhelmingly so. Certainly there is no basis in these data for a strong assertion that township government as now constituted is firmly implanted in the supportive attitudes of fringe residents.

Recalling the superior evaluation of central city services, shown in Table 1, and relating that to the less than enthusiastic appraisal of township government, one might presume that fringe residents would be receptive to annexation by the central city. Such is not the case, however. When asked to choose among various ways of resolving service deficiencies in the fringe, the majority of household heads indicated a preference for a retention of the township form of government.<sup>2</sup> Evidently they have in mind a township government with greatly expanded powers of local government. But this does not extend to the point of township incorporation as a city. Only 8 per cent advocated that as a solution. Annexation was preferred by slightly less than one-fifth. A still smaller proportion felt that the county should assume

<sup>2</sup>The solutions from which the respondent could choose were: (a) The township should remain as it is and provide the things that this area needs. (b) The township should become a city so as to have more powers and provide the things that this area needs. (c) The county government should provide the things that this area needs. (d) This area should be annexed to the city of Flint and have the city provide the things that this area needs.

responsibility for the provision of urban services in the fringe area. Parenthetically, 79 per cent indicated they would be willing to pay increased taxes to the township in order to secure better services.

In pursuing the issue of annexation further, the series of questions shown on the stub of Table 3 was put to each respondent. Household heads reported as their belief that no more than a sixth of the residents

*Table 3. Attitudes of residents toward annexation to city of Flint*

Questions on annexation	Attitude toward annexation				Total
	Total No.	Favor or yes	Oppose or no	Don't know and no ans.	
		%	%	%	%
How do people in area feel about annexation?	413	16.6	69.0	14.4	100.0
Do you favor or oppose annexation?	413	22.3	73.8	3.9	100.0
Do you think area will annex in in near future?	413	46.0	49.4	4.6	100.0
Do you think area will ever annex? (Applies only to those not answering "yes" above)	223	52.0	31.4	16.6	100.0
Would you vote for annexation in near future?	413	23.5	72.6	3.8	100.0
Would you ever vote for annexation? (Applies only to those not answering "yes" above)	316	29.7	63.3	7.0	100.0

in their area favored annexation. But that estimate seems to reflect an inability to assess public opinion correctly, as the large proportion of "don't know" answers suggests (14.4 per cent). Actually, when the question was limited only to annexation, almost one-fourth of the residents indicated their own attitudes to be favorable, as compared with only one-fifth who selected this as the best solution among several alternatives, while three-fourths announced opposition to annexation.<sup>3</sup>

<sup>3</sup>The same question elicited a 70 per cent favorable response from city of Flint residents.

A similar distribution of responses was obtained from the question: Would you vote for annexation in the near future? Nevertheless, many fringe residents believe annexation will occur in the near future (46 per cent), and of those who do not believe so, more than half (52 per cent) believe it will ultimately take place.<sup>4</sup> Evidently it is expected that support for annexation will come from sources other than themselves, for almost three-quarters of the household heads interviewed declared they would not vote in favor of such a proposal in the near future and nearly two-thirds of that group asserted they would never support annexation.

The attitudes expressed by fringe residents seem to imply a fairly close acquaintance with local government. The extent to which this is actually true is discussed below. One measure of familiarity with local government may be obtained from questions concerning knowledge about the number of township elective offices and the names of the elected officials. Forty per cent of the household heads interviewed were unable to identify any elective office. This total seems high; it exceeds any of the proportions reporting supportive attitudes shown in Table 2. Nearly two-thirds could name no more than two elective offices. And over three-fourths of the respondents who were able to identify an elective office could name, at the most, two persons who occupied elective office. Persons who were fully cognizant of township officialdom formed a small fraction of the total, less than 8 per cent when measured by knowledge of elective offices and less than 4 per cent when the names of elected officials were used as the criterion.

Questions were also asked about knowledge of the meeting places of various governing bodies and previous attendance at meetings of the bodies. Almost half knew where the local school board met, but less than one-fourth were aware of the meeting place of the County Board of Supervisors. The experience of having attended a meeting of any of the local governing boards is considerably more rare.<sup>5</sup> When attendance at meetings during the past two years is related to number of years lived at present address, it is found that the probability of attending such a meeting rises with length of residence. However, attendance does not exceed 25 per cent in any length of residence category even in the case of the Township Board, which seems to attract the largest attendance.

The evidence of knowledge about local government in the sample is

<sup>4</sup>Responses to these questions in the city of Flint were 69 per cent and 58 per cent respectively.

<sup>5</sup>In the city of Flint a much higher proportion knew where the City Commission held its meetings, and a slightly larger proportion had attended a meeting during the past two years. Similarly, city residents were more familiar with the meeting place of the County Board of Supervisors and equaled the fringe in the proportion who had attended a meeting of this group. However, knowledge of and attendance at School Board meetings were lower in the city than in the fringe area.

far from impressive. It suggests that the affirmation of a relatively personal and democratic government in the fringe, reported in Table 2, may be based on hearsay or wishful thinking. In fact, most of the household heads who believe that more is to be gained from talking to township as compared to talking to city officials do not even know where the meeting place of the Township Board is located, and a negligible fraction have ever attended a meeting of the Board.

Let us now try to relate the various findings to one another in order to arrive at general conclusions. It will be recalled that fringe residents were dissatisfied with most of the public services available in their areas. It was also observed that a large majority felt that time was ripe for an enlargement of local government activities. While the judgment on the relative merits of township officials and government were somewhat equivocal, though weighted toward the favorable side, the popular preference was for a retention of the township form of government. Both annexation and township incorporation received small support as ways of obtaining improved public services. Yet the knowledge that fringe residents have of their local governments is modest. It does not correspond to the strength of many of the opinions expressed.

In short, there is support for at least the tentative conclusion that fringe residents in the Flint metropolitan area are not well enough informed about their own government, to say nothing of governmental forms and procedures in general, to make a mature decision on how to deal with their problems. Why, for example, should township incorporation be rejected when it is commonly agreed that more and better public services are needed? For that matter, why should annexation be rejected, in view of the evaluation made and the needs expressed? Ignorance may prove to be but part of the answer. There may also be a lack of local leadership from which clear formulation of issues may come. In any event, it does not appear that the fringe population is presently able to act constructively in the solution of their needs. It would be of interest to know to what extent these conditions exist in other metropolitan areas.

ELMER LEWIS SMITH

## *Personality Differences between Amish and Non-Amish Children*

This study of Amish and non-Amish pupils attending the same rural elementary schools is an attempt to measure whether, and to what degree, belonging to a unique religious sect affects personality.

A standard personality inventory was administered under test conditions. The children classified as Amish wore the unique garb of the sect and the non-Amish pupils were those who did not wear "plain" clothing.

The subjects were children in seventh and eighth grades in two rural schools in southeastern Pennsylvania. The inventory results showed a consistent difference between the Amish and the non-Amish pupils. Amish children were more submissive, more introverted and withdrawn, and slightly less emotionally balanced than the non-Amish children.

Membership in a unique religious sect seems to produce personality patterns somewhat different from members of the typical American society.

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AMID the heavily populated eastern United States, in a section of rural southeastern Pennsylvania, there is a sect group with a way of life far different from the typical American culture. It is a world made strange by customs, values, and beliefs which Amish fathers have handed down to their offspring for more than two centuries.

The Amish wear specially prescribed garments and speak a strange tongue. The married men grow beards and have a special hair style. Sect members travel by horse and buggy, because automobiles are forbidden. Electricity, telephones, movies, cosmetics, radio, and television are among the many other taboos of this group.

The result of these religious values has been a peaceful life which permits no military participation, stimulates co-operation and mutual aid rather than competition, and facilitates the perpetuation of a simple agricultural life, where personal contacts are intimate, family relationships are enduring, and social relationships are stable.

Today, these sturdy farming people are less isolated than ever before, living now in political units culturally unlike their own and with people who have desires and attitudes more in conformity with general American society. As the industrial and commercial expansion of nearby cities occurs and rapidity of transportation increases, more and more non-Amish persons have been residentially located near Amish settlements and as a result have shared the local rural elementary school facilities. Many non-Amish people consider Amish children to be introverted, entirely too submissive and withdrawn, and in general emotionally less stable than non-Amish children.

The present study is an attempt to measure certain elements of personality, by use of an inventory which was presented to Amish school children, and to compare the results with those obtained by means of an inventory presented to non-Amish children attending the same schools. The inventory was administered in the spring of 1955.

In the study, the term Amish is used to refer to children of families who belong to the Old Order Amish sect; these children wear distinctive garb and are subjected to the customs indicated above. The term non-Amish is used to refer to all children who do not wear this special garb and who are not children of members of the Old Order Amish sect. Although some children in the same classes were members of religious sect groups very similar to the Amish (Amish-Mennonite; Old Order Mennonite), they have been excluded from this study.

The subjects were children in grades 7 and 8 in two rural public schools in southeastern Pennsylvania. The schools studied were selected because they were located in the center of the Amish settlement and because of the relatively equal distribution between Amish and non-Amish pupils. In one of the schools there were 66 Amish children and 48 non-Amish children in the seventh and eighth grades. In the other school, the enrollments were 54 Amish children and 60 non-Amish children. The totals for both schools are 120 Amish and 108 non-Amish, made up of 58 Amish boys and 62 Amish girls, and 48 non-Amish boys and 60 non-Amish girls.

The Pintner, Loftus, Forlano, and Alster personality inventory<sup>1</sup> was used. This inventory measures three important aspects of personality and is specifically designed for use with pupils at the elementary school level. All of the questions on the inventory are answered by crossing out a square containing either a D or S. By crossing out the D the child indicates that his or her feelings are different from the statement; crossing out the S indicates that the child feels the same as the statement. The inventory is divided into three sections, each containing 35 questions to be scored. The first section is designed to measure ascendancy-submission, including the physical, nervous, and sensory factors influencing the child. The second part pertains to the

<sup>1</sup>*Aspects of Personality* (Yonkers, N.Y.: World Book Co., 1937).



social and cultural forces affecting the child and affords a measure of introversion-extroversion, while the third category includes the temperament and personality traits of children and is designed to give a measure of emotional stability.

All children in the seventh and eighth grades in the two schools under study were given the personality inventory. Mean scores in each section of the inventory were computed for Amish boys and girls and non-Amish boys and girls.

*Table 1.* Distribution of ascendance-submission scores  
by sex and sect

Sex	Sect	No. of subjects	Mean score	Difference in means
Boys	Amish	58	16.1	-2.8
Boys	Non-Amish	48	18.9	
Girls	Amish	62	13.3	-1.5
Girls	Non-Amish	60	14.8	
Both	Amish	120	14.7	-2.1
Both	Non-Amish	108	16.8	

Table 1 indicates that the mean scores for the Amish girls and boys were significantly lower than the non-Amish. In the ascendance-submission part of the inventory, low scores indicate a "submissive, retiring child who is not likely to be a leader, but rather a docile follower."

Low scores in Table 2 are indicative of introversion. Both the boys

*Table 2.* Distribution of extroversion-introversion  
by sex and sect

Sex	Sect	No. of subjects	Mean score	Difference in means
Boys	Amish	58	21.2	-3.8
Boys	Non-Amish	48	25.0	
Girls	Amish	62	18.9	-2.5
Girls	Non-Amish	60	21.4	
Both	Amish	120	20.1	-3.1
Both	Non-Amish	108	23.2	

and girls of the Amish groups have mean scores lower than those of the non-Amish. Although the authors of the inventory state in their manual that low scores indicate that the subjects are "too much turned in on themselves," it should be noted, however, that one of the major tenets of the Old Order Amish religion is separation and withdrawal from the world.

*Table 3.* The distribution of emotional stability scores by sex and sect

Sex	Sect	No. of subjects	Mean score	Difference in means
Boys	Amish	58	23.6	-1.0
Boys	Non-Amish	48	24.6	
Girls	Amish	62	24.0	-0.6
Girls	Non-Amish	60	24.6	
Both	Amish	120	23.8	-0.8
Both	Non-Amish	108	24.6	

High scores in Table 3 may indicate a greater amount of emotional balance. The Amish groupings scored lower than the non-Amish, although there is less difference between the Amish and non-Amish in emotional stability than in the extroversion-introversion and ascendance-submission elements of this inventory.

The authors of the inventory consider the scores on the three sections to be more a general description of a child's personality than an accurate diagnosis of personality difficulties. Since each part of the inventory reveals an important aspect of personality, a composite mean score of all three parts should indicate over-all personality differentials.

Table 4 indicates the differences between Amish and non-Amish children in general personality as measured by this inventory. In every section of the inventory non-Amish groups ranked higher than the Amish.

It is interesting to note that the most significant area of difference between the Amish and non-Amish groups was found in the extroversion-introversion section of the test, which was designed to measure the social and cultural forces affecting the child. The authors of the inventory state that persons who score low in this section "withdraw too much from the world and tend to find too great satisfaction in their own daydreams. They may dodge the responsibilities of the real world and obtain their satisfactions in an imaginary one." The

low scores of the Amish groups may point to a fulfillment of the required behavior of their sect in withdrawing from the world, for

*Table 4.* Composite distribution of scores for inventory as a whole by sex and sect

Sex	Sect	No. of subjects	Mean scores composite	Difference in means
Boys	Amish	58	20.3	-2.5
Boys	Non-Amish	48	22.8	
Girls	Amish	62	18.7	-1.6
Girls	Non-Amish	60	20.3	
Both	Amish	120	19.5	-2.0
Both	Non-Amish	108	21.5	

the Amish consider themselves to be both a "peculiar" and a "chosen" people. The low scores registered by the Amish children may indicate a recognition of their responsibilities in their cultural group rather than personality difficulties.

Although the major focus of this study has been a comparison of the Amish and non-Amish attending the same schools, a further measurement was calculated in order to compare the subjects of this study with the norm groups as indicated in the manual accompanying the inventory. The authors of the inventory have established tables of percentile ranks by sex. Each individual crude score was converted into a percentile according to the table of norms. Table 5 was compiled by taking

*Table 5.* Percentile ranks, by sex, of Amish and non-Amish children on the basis of norms established and published for the "Aspects of Personality Inventory"

Sex	Sect	Submission-ascendancy		Introversion-extroversion		Emotional stability	
		Med.	Inter.	Med.	Inter.	Med.	Inter.
Boys	Amish	45.9	42	47.4	45	18.8	12
Boys	Non-Amish	64.9	70	76.9	83	24.1	13
Girls	Amish	31.1	26	29.1	20	29.2	18
Girls	Non-Amish	38.4	36	49.2	47	30.5	21

the median of all individual percentiles and also by the process of direct interpolation of the crude score medians, by groups, into the table of norms.

In two categories of this personality inventory, non-Amish boys were above the 50th percentile, while non-Amish girls and Amish children of both sexes were below the 50th percentile. All groups were below the 25th percentile in the emotional stability section of the inventory, with little difference between Amish and non-Amish. Throughout this study the Amish groups, both girls and boys, have scored consistently lower than the non-Amish.

In some instances, an exceptionally high score may indicate personality difficulties. The authors, in discussing the submission-ascendancy section of the inventory, say, "Children who score very high on this test, those above the 90th percentile, should be watched carefully to see that they do not develop into inconsiderate, domineering individuals, who like to bully and dominate others for their own individual gratification." No Amish children scored above the 90th percentile in this category, but 12.5 per cent of the non-Amish boys and 20 per cent of the non-Amish girls did.

Insofar as such differences are measurable by an inventory like the one used in this study, membership in a unique religious sect seems to produce personality patterns somewhat different from those of the more typical American society.

E. GRANT YOUMANS

## Parental Reactions to Communications on the 1954 Polio Vaccine Tests

This paper (1) evaluates the preparatory communications to parents about the 1954 polio vaccine tests in a local suburban and rural area, (2) assesses parental reactions to the communications and to the vaccine program itself, and (3) examines the hypothesis that socioeconomic status is a significant factor in determining how persons receive, evaluate, and respond to communications on a public health measure. Higher-status parents compared to lower-status parents received much more information both favorable and unfavorable to the polio vaccine program and reacted more critically to the unfavorable information. A substantially greater proportion of high- than of low-status mothers permitted their children to participate in the program. This paper suggests that the media for communicating on science and medicine tend to be middle-class oriented and middle-class received. The significant question is: how can communications on health measures be designed, directed, and channeled so that large numbers of persons in all social groups will be reached and influenced?

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THE nationwide test of the Salk polio vaccine in the spring of 1954 involved securing the voluntary participation of thousands of parents and children. For the tests to be conclusive, inoculation of school children had to take place well before the onset of the polio season, but plans for the trials could not be completed until large-scale commercial production of a safe vaccine had been assured. Although medical personnel were not unanimous on the desirability of pushing ahead with all speed for tests in 1954, on April 25, 1954, the Advisory Committee of the National Foundation for Infantile Paralysis decided to proceed

\*This paper was prepared while the author was with the National Institute of Mental Health, Bethesda, Maryland.

to test the vaccine. Working through state Health Departments and local health officers, the N.F.I.P. made plans to test the effectiveness of Salk's polio vaccine in preventing crippling polio. The test population selected was children of the first to third grades in local areas chosen for their past high polio incidence. One of the crucial tasks in the procedure was to orient thousands of parents and children about the polio vaccine program in a very short period of time. The primary objective of N.F.I.P. communications was to supply understandable and nonconflicting information to all parents whose children were scheduled to receive the vaccine. A number of questions can be asked about this objective: Of the communications on the polio vaccine program, what did parents of the affected children in local testing areas receive? What were the sources of such information? How did the parents react to this information? Answers to these questions, in terms of a particular local testing area, probably will give some indication of the effectiveness of the communications.

This paper<sup>1</sup> (1) describes and evaluates the preparatory communications on the 1954 polio vaccine tests which impinged upon parents in a local suburban and rural area, (2) assesses parental reactions to the communications and to the vaccine program itself, and (3) examines the hypothesis that socioeconomic status is a significant variable in determining how persons receive, evaluate, and respond to communications on a public health measure.

Data used in this paper were obtained from (1) tabulations of polio vaccine topics discussed in the mass media in the local area, (2) observations of orientation meetings held in two counties to inform parents of the vaccine tests, and (3) interviews with a sample of mothers<sup>2</sup> in one

<sup>1</sup>The study was designed and carried out by the Laboratory of Socio-environmental Studies, National Institute of Mental Health, Public Health Service, U.S. Department of Health, Education and Welfare in collaboration with the National Foundation for Infantile Paralysis. Field interviewing was conducted by the Bureau of Social Science Research, American University, under a grant from N.F.I.P. Local arrangements were facilitated by Dr. Harold Kennedy, Health Officer of Fairfax County, Virginia, without whose interest and full co-operation the study would not have been possible. John A. Clausen, Chief of the Laboratory of Socio-environmental Studies, was study director.

For discussion of factors associated with parental participation in the inoculation program see J. A. Clausen, M. A. Seidenfeld, and L. C. Deasy, "Parental Attitudes toward Participation of Their Children in the Salk Vaccine Trials," *American Journal of Public Health* XLIV (Dec., 1954); and L. C. Daisy, "Socio-economic Status and Participation in the Salk Vaccine Trials," *American Sociological Review*, XXI (April, 1956).

<sup>2</sup>The population interviewed consisted of a random sample of mothers of second-grade children in five public schools. Every third name from an alphabetical list of each section in each school was drawn. Three of the schools represented suburban areas; two represented primarily rural areas. One of the suburban schools was for negro children, and the others were for white children. The mothers were interviewed in the week prior to the commencement of the inoculations.

of these counties. The two counties studied are located in the metropolitan area of Washington, D. C., and the socioeconomic level is higher than that of the United States as a whole.

### THE PREPARATORY COMMUNICATIONS

The preparatory communication materials on the 1954 polio vaccine tests examined are (1) mass media communications aimed at this general population, such as magazines, newspapers, radio, and television, (2) formal presentations of information at orientation meetings for parents, and (3) printed materials prepared by the National Foundation for Infantile Paralysis specifically for informing those persons whose co-operation in the vaccine tests was desired.

*Mass media:* The first widespread publicity on the contemplated mass polio vaccine trials appeared in the early fall of 1953. *Time* magazine, for example, had a lengthy story in October, 1953. Between this date and April, 1954, the major news magazines and papers carried a number of comprehensive articles on the topic of polio vaccines. These articles gave full coverage to the discovery and preparation of the vaccine, the nature of the proposed test for effectiveness, and the safety and availability of the vaccine. As is indicated by some of the titles, the articles conveyed the hope that at last a remedy had been found for a dreaded disease: "D-day Against Polio," "Mass Polio Tests," "The Fight on Polio," "Tracking the Killer," "The Great Test," "Polio: At Last the End of the Crippler," "Closing in on Polio," "Vaccine Safety," and "Polio Pioneers."

Early in January, 1954, the leading Washington, D.C., newspapers carried feature articles on the proposed vaccine tests. Through March and April news items or feature articles appeared almost daily. From January 1, 1954, to April 30, 1954, the three Washington daily newspapers carried approximately one hundred and fifty items referring to polio or the polio vaccine tests. Three-fourths were news items, one-fifth were feature articles, and one-twentieth were editorials. Only a dozen appeared on the front pages of these newspapers.

The most common aspect of the polio vaccine tests discussed in the Washington newspapers was the "safety" of the vaccine, which appeared in about three-fifths of the newspaper items. Slightly over one-half of the items discussed the inoculation procedure and slightly less than one-half described in some way the nature of the experimental design of the vaccine trials. From one-quarter to one-third of the materials discussed the nature, effectiveness, and availability of the vaccine, the nature of the polio virus, and the nature of the immunity which the Salk vaccine was expected to produce in children.

A nationally known radio commentator, in the latter part of March, 1954, devoted portions of several broadcasts to warning against the Salk polio vaccine. He stated that live polio virus had been found in certain



batches of the vaccine and asserted that instead of being a cure for polio, the vaccine "may be a killer." The newspapers reported the broadcasts but took issue with the alarming implications of the broadcaster's statements. They presented their reasons for rejecting his charges that the Salk vaccine might actually spread polio rather than prevent it. The contents of these press materials are illustrated by such captions as "Virus of Panic," "Untruths about Polio," "Reassurance Given on Polio Vaccine," and "Authorities Dispute [radio broadcaster] on Danger of Polio Vaccine."

*Orientation meetings and printed materials:* Special communications were aimed directly at the parents whose children were to be inoculated. These took the form of orientation meetings held for parents in local schools and printed materials prepared by the National Foundation for Infantile Paralysis. Observations were made at ten of the orientation meetings. Four of these were held during March in County A, which was scheduled for the polio vaccine tests but which subsequently withdrew. Six were held during April in County B, where the tests were actually carried out and where a sample of mothers was interviewed. Presentations at these meetings were made by private physicians and by members of the local health department staff. Following the presentations, questions were invited from the audience.

The printed materials consisted of a mimeographed letter bearing the signature of the President of the N.F.I.P. and a printed leaflet. These materials were taken to the parents by the children, along with a consent slip on which the parents indicated whether or not their children were to be inoculated. The letter and printed leaflet explained why it was necessary to test the effectiveness of the vaccine in preventing paralytic polio. They described the nature of the vaccine, who would receive it, how the vaccine had been tested for safety, the number of shots required, where the shots would be given and by whom, who was responsible for the test, and when the results would be known.

#### PARENTAL REACTIONS TO COMMUNICATIONS

In examining parental reactions to the 1954 polio vaccine communications, the families interviewed in the local area have been divided into two groups—one of "high" and one of "low" socioeconomic level.<sup>3</sup> The "highs" include professionals and skilled workmen who had a high-school education or more and who were married to women of similar education. The "lows" include skilled, semiskilled, and unskilled workmen who were not high-school graduates and who were married to women who also had not graduated from high school.

<sup>3</sup>Acknowledgment is made to L. C. Deasy for construction of the index of socioeconomic level (*op. cit.*). Three weighted variables were used: occupation of father, education of father, and education of mother. Occupation is weighted twice as heavily as education. Dr. Deasy delineated three socioeconomic groups.

*The mass media:* Printed materials constituted the most common source of over-all information for mothers of both high and low social status. Substantial differences<sup>4</sup> were found between the two status groups in receiving over-all information from newspapers and magazines. Nine-tenths of the high-status mothers reported they had received over-all information from the newspapers, but only three-fifths of the low-status mothers reported this source. One-third of the high-status group said they learned about polio vaccine program from magazines, but only one-twelfth of the low-status mothers acknowledged this source. Although radio and television networks were not used systematically to broadcast news on the polio vaccine program, almost one-half of both high- and low-status mothers indicated they had obtained information by this means.

The two social status groups differed substantially in the sources of initial information received on the participation of their local county in the vaccine tests. Seven-tenths of the high-status mothers obtained this information from newspapers, but only one-quarter of the low-status mothers reported this as a source. On the other hand, three-fifths of the low-status mothers first learned of local participation from the school, but only one-fifth of the high-status group indicated the school as a first source.

The two social status groups also differed significantly in the kinds of information received via the mass media. Fourth-fifths of the high-status but only two-fifths of the low-status mothers said they had heard or read unfavorable public statements about the Salk polio vaccine. When they were asked specifically if they had heard there may be live virus in the vaccine, a substantially greater proportion of the high- than of the low-status mothers said "yes" (79 per cent vs. 41 per cent).

Social status also appeared to be a significant variable in the "evaluations" given to the information received. Three-quarters of the high-status compared to three-fifths of the low-status mothers who acknowledged hearing or reading unfavorable public statements said they disagreed with such statements. Seven-tenths of the high- but only one-half of the low-status mothers said that most of the people who made public statements against the vaccine lacked medical training. Three-quarters of the high- but only one-half of the low-status mothers said they "were completely convinced the polio shots will be perfectly safe," and 85 per cent of the high-status mothers compared to 43 per cent of the low-status mothers gave consent for their children to receive the polio vaccine shots.

*Formal orientation meetings:* Only one-third of the high-status mothers and only one-fifth of the low-status mothers reported that they or

<sup>4</sup>All differences reported are significant at the .05 level of probability or less unless otherwise indicated.

their husbands had attended an orientation meeting. The mothers in the two social status groups differed significantly in their reactions to the meetings. Almost three-fifths of the high-status compared to one-third of the low-status mothers who attended the meetings said that they thought their questions were answered and that they felt satisfied with the explanations given.

One purpose of the orientation meetings was to give parents of children scheduled to be inoculated the opportunity to ask questions about the polio vaccine program. Approximately eight hundred persons attended the ten meetings observed in the local area, and they asked a total of two hundred and seventy-five questions. The three topics of chief concern to the parents in the local area (in terms of frequency of questions asked) were (1) the experimental design of the tests, (2) the possibility of allergic or negative reactions of the child, and (3) the inoculation procedure.

The topic of the safety of the vaccine (specifically in terms of the live-virus issue) did not assume the importance given to it in the local newspapers. Three-fifths of the newspaper articles on the vaccine program included references to the topic of safety, and it was the most common topic discussed. While the question of the safety of the vaccine was discussed at each orientation meeting, only one-eighth of the questions were directed to this topic, and it was given fourth place in the frequency of questions asked.

A significant difference was found between the mothers in County A and the mothers in County B in the number of questions they asked on the issue of the safety of the Salk vaccine. In County A only 3 per cent of the questions were concerned directly with the question of safety, but in County B 15 per cent of the questions were directed to this topic. The orientation meetings in County A were held *before* the radio broadcasts calling attention to some "live virus" being found in some batches of the Salk vaccine. The meetings in County B were held *after* the broadcasts. The difference between the two counties probably reflects the increased attention paid to the question of the vaccine's safety both by the local press and by the speakers who made the presentations at the meetings.

*The printed materials:* Almost all the mothers interviewed in the local area indicated they had received the N.F.I.P. materials sent home from the school. The significant questions are: Did the mothers read and understand these materials? Did they find them interesting and easy to read or did they find them dull and difficult? Since these questions were not asked of the mothers interviewed, the answers are not known. However, it is possible to make an assessment of the printed materials in terms of "reading ease" and "human interest" and thereby to infer whether the mothers were likely to have read and understood the materials.

Flesch<sup>5</sup> has designed a statistical formula for the objective measurement of readability. The application of the formula has resulted in "more readable" materials in a wide variety of fields—newspaper copy, government publications, educational books, and research reports. The formula measures both reading ease and human interest of written materials. The reading ease score will place a piece of writing on a scale between 0 (practically unreadable) and 100 (easy for any literate person). The human interest score will place the writing on a scale between 0 (no human interest) and 100 (full of human interest).<sup>6</sup>

After applying the Flesch formula to the N.F.I.P. printed materials sent to the parents, the following scores were obtained:

	<i>Reading ease score</i>	<i>Human interest score</i>
Message to parents	48.8	18.8
Polio vaccine pamphlet	47.9	16.1

Thus the "reading ease" score placed the N.F.I.P. printed materials in the "difficult" reading category comparable to textbook materials used in colleges although near the lower level of this category. The "human interest" score placed the printed materials in the "mildly interesting" category similar to that of the trade journals.

It is recognized that the amount of formal education does not indicate accurately the reading level of adults. Adults do not stay put educationally. However, since over one-third of the mothers in this study had less than a high-school education, it seems safe to infer that many of them must have had a great deal of difficulty in reading and understanding the printed materials sent to them from the schools.

### CONCLUSIONS

This paper has reported very substantial differences between mem-

<sup>5</sup>Rudolph Flesch, "A New Readability Yardstick," *Journal of Applied Psychology* XXXII (June, 1948), 221-233.

<sup>6</sup>The scores and the typical magazines they measure are as follows:

<i>Reading ease score</i>	<i>Description of style</i>	<i>Typical magazine</i>	<i>Formal educational level</i>
0-30	Very difficult	Scientific	College graduate
30-50	Difficult	Academic	College student
50-60	Fairly difficult	Quality	High school
60-70	Standard	Digests	8th and 9th grades
70-80	Fairly easy	Slick fiction	7th grade
80-90	Easy	Pulp fiction	6th grade
90-100	Very easy	Comics	5th grade

<i>Human interest score</i>	<i>Description of style</i>	<i>Typical magazine</i>
0-10	Dull	Scientific
10-20	Mildly interesting	Trade
20-40	Interesting	Digests
40-60	Highly interesting	<i>New Yorker</i>
60-100	Dramatic	Fiction

bers of different socioeconomic status groups in receiving, evaluating, and reacting to communications on a public health program. In the local area studied, the high-status parents compared to the low-status parents received much more information both favorable and unfavorable to the polio vaccine program. The high's reacted more critically to the unfavorable information than the low's, and a substantially greater proportion of the high's than of the low's permitted their children to participate in the program.

These findings suggest an important problem confronting not only the continuance of the Salk polio vaccine program but other public health measures in the United States. This problem is: how can communications on public health programs be designed, directed, and channeled so that many persons of lower social status as well as of high status will receive and understand them?

This paper contributes evidence that the media for communicating information about science and medicine tend to be middle-class oriented and middle-class received. It is questionable whether pouring additional funds into these media will facilitate reaching and influencing more people of lower socioeconomic status. Effective communications to these persons must be geared to the value orientations and social structure of their own class. Precisely, how do they get and accept information? What are their significant reference groups? If these groups can be organized as agents for communicating with lower-status persons, probably more of them can be reached and influenced by public health programs.

HOWARD E. BRACEY

## **Some Aspects of Rural Depopulation in the United Kingdom**

Rural depopulation is a world phenomenon associated with industrialization. A great many factors are involved. The standards of providing a variety of public utility services and extending social organizations in villages with persistently decreasing population are compared with those in villages of increasing population. The attitudes of residents in villages where population has persisted for a long time differ considerably from those of people of the "outside world," and in these villages little interest is taken in local government, education, or the organization of local social activities. Employer-employee relationships are often strained. Many reasons contribute to the initial decision to leave the home in the country. No nation in the world has a higher proportion of paid workers in agriculture than the United Kingdom. This gives workers greater mobility and, since there are fewer owner-occupied holdings, less chance of promotion. Once emigration has begun, it tends to generate its own momentum—fewer people can support fewer services, and fewer services will tend to make the area less attractive. Mechanization would have created unemployment without the substantial rural depopulation, but the rate of loss today is felt to be out of proportion.

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SINCE the beginning of the nineteenth-century Industrial Revolution in Great Britain, rural depopulation has marched step by step with increased industrialization and urban concentration. The 1801 proportion of one townsman to four countrymen has now become four townsmen to one countryman. This drift of country workers to urban-sited industries is not peculiar to the United Kingdom, of course. It has been noticeable in the United States at least since 1920, and in the new China, even, we read that although "fathers and grandfathers still insist that no way of life can be better than digging the earth, the sons and

grandsons are thinking in terms of factories, railways, machine shops, a business career or higher education."<sup>1</sup> In the new Poland there has been "extensive migration from the country to the towns" in the period 1949-1955.<sup>2</sup> The problem is international and is experienced wherever and whenever manufacturing industry has assumed or is assuming a major role in a nation's economy.

The general density of rural population for England and Wales is about 155 per square mile but that for individual rural districts varies from nearly 400 down to 30 or lower. Rural population densities are related to (a) the natural increase of the rural population resulting from any excess of births over deaths, (b) the cross-currents of migration, i.e. from country to town and *vice versa*, (c) the "spill-over" of town population into rural local government areas. As a result of the interplay of these factors, the local situation varies throughout the United Kingdom. Around many big towns so many houses have been built for town workers that the countryside is scarcely recognizable as rural areas and villages have become suburbs. By contrast, in some localities people have been drifting away for so long that it is considered to be normal for young people to leave the village when they approach manhood or womanhood. This is well known to be so in central Wales and the Highlands of Scotland, but there are also rural areas in north Devon, the north Pennines, parts of the north Yorkshire moors and the Vale of Pickering, and part of northeast Suffolk where parish populations have been declining for very long periods. In Herefordshire between 1871-1931 the decline in rural population was estimated to amount to 22 per cent. It was, however, unevenly distributed and in some of the upland parishes amounted to as much as 50 per cent.<sup>3</sup>

Why do hundreds of people leave their homes in the countryside each year to live in towns? A century ago, it would probably have been enough to refer to the insufficiency or lack of local employment. Life today, however, is much more complicated, and a great number of factors go to determine the sizable movements of people from one part of the country to another.

<sup>1</sup>Martin C. Yang, *A Chinese Village, Taitou, Chantung* (London, 1948), p. 201.

<sup>2</sup>Adam Jelonek, "Rozwojurbanizacji w Polsce Ludowej," *Przegląd Geograficzny*, XXVIII, No. 4 (1956), 809.

<sup>3</sup>"West Midland Group," *English County* (1946), p. 79. The reader is referred to the following articles for information on recent changes in the population of England and Wales: E. C. Willatts and Marion G. C. Newson, "The Geographical Pattern of Population Changes in England and Wales, 1921-1951," *Geographical Journal*, CXIX, pt. 4 (1953); S. W. Vince, "Reflections on the Structure and Distribution of Rural Population in England and Wales, 1921-31," in Institute of British Geographers, *Transactions and Papers*, No. 18 (1952); R. H. Osborne, "Internal Migration in England and Wales 1951," *Advancement of Science*, No. 48 (1956).



## SOCIAL SERVICES AND ORGANIZATIONS

Among the various causes put forward to explain rural depopulation the absence of main water and sewerage, the scarcity and backwardness of village shops, and the relatively low standard of various services are favorite topics for political platforms in rural constituencies, at Women's Institute meetings, and the like. Indeed, some enthusiasts would have us believe that rural depopulation can be explained wholly in terms of the lack of bathrooms, inadequate village school facilities, and the disappearance of the village blacksmith. Standards of providing public utility and other services in rural areas are low enough, as I have shown elsewhere,<sup>4</sup> but the arguments need to be examined with care, especially since they are so often put forward by people who are still dwelling in the countryside despite the many drawbacks.

A detailed comparison of the relation between the standards of providing rural services and the incidence of social organizations in the areas of increasing population, with the standards in areas of decreasing population in 375 Somerset parishes showed that (a) parishes which have experienced persistent depopulation over a long period tend to occur in areas which are relatively remote from well-populated urban areas; (b) the number of services per parish in these areas is, in general, lower than in areas where population is increasing; (c) for each group of services there are parishes in areas of increasing population which have as few services or organizations as parishes which are declining in population; and (d) parishes in depopulating areas are, on the whole, much smaller than those in areas of increasing population, and this fact seriously influences the development and maintenance of new services and organizations of all kinds.<sup>5</sup>

## VILLAGES WITH DECLINING POPULATIONS

Adam Curle and Duncan Mitchell of Exeter University who have examined in detail an area in the South Hams of south Devon, where rural emigration has persisted for a long period, found that the following conditions were very frequently present in villages of declining population:<sup>6</sup> (a) Most traditional crafts had disappeared, and there was a lack of alternative employment. (b) There were few public utility services and few shops. (c) There appeared to have been little corporate

<sup>4</sup>H. E. Bracey, *Social Provision in Rural Wiltshire* (1952).

<sup>5</sup>H. E. Bracey, "A Note on Rural Depopulation and Social Provision," *Sociological Review*, VI, No. 1 (1958), New Series, 67-74.

<sup>6</sup>Adam Curle and G. Duncan Mitchell in a private communication and in articles by G. Duncan Mitchell: "Depopulation and Rural Social Structure," *Sociological Review*, LXII (1950), 69-85; "The Relevance of Group Dynamics to Rural Planning Problems," *Sociological Review*, LXIII (1951); and "Social Disintegration in a Rural Community," *Human Relations*, III (1950). See also the case study of the South Hams area in John Saville, *Rural Depopulation in England and Wales, 1851-1951* (1957), ch. v.

social activity at any time in the past. (d) Villagers showed little interest in the adult education activities offered by education bodies. (e) Little regard was paid to local government or local government affairs, for example, the work of the police, teachers, and the like. (f) Throughout the area, people of forty-five years and over constituted a proportion which was 18-20 per cent higher than the national proportion. Further, the number of births per thousand was lower than for England and Wales as a whole. There were fewer married people than would have been expected. The proportion of women to men was 45 to 55, which is the reverse of that for England and Wales. (g) Agricultural holdings were small; 30 per cent held less than forty acres. In general, the standard of husbandry was low. (h) A noticeable hostility to the world outside, i.e. outside the survey area and sometimes outside the village, was apparent in conversation and discussion. Finally, (i) employer-employee relationships were often strained.

These features are not put forward as necessarily causing (indeed they may be the result of) migration from the South Hams area, but as typifying the conditions likely to be found when emigration has been operating for a long time as is the case in most rural areas which are losing people today.

#### THE COUNTRY EMIGRANT

Throughout the history of the United Kingdom, agriculture has experienced many changes of fortune, but during the last two centuries the bad times appear, on balance, to have outweighed the good. This is true especially for agricultural workers, who have generally suffered more from successive depressions than the farmer and to whom, in fact, peace and prosperity have meant relatively little.<sup>7</sup>

Expanding urban activity tends to increase the pull which towns exert on the countryside by offering higher wages, special transport facilities, and other inducements, and except in the depression areas of South Wales, the Clyde, and so on, this has been the trend most of the time since the Industrial Revolution began. The tide of rural emigration has only eased when urban industry was in the doldrums.

At the same time as this attraction townwards was operating, country workers watched more and more land going out of cultivation and fewer and fewer workers being needed to work the remainder as mechanization and factory processing of farm products developed. (The total area of land under arable cultivation in Great Britain has, however, increased recently from nine million acres in 1936 to nearly thirteen and a half million acres in 1955.)

No country in the world has a higher proportion of paid workers in agriculture than the United Kingdom<sup>8</sup>—a situation which has two

<sup>7</sup>C. S. Orwin in Foreword to W. H. Pedley, *Labour on the Land* (1942).

<sup>8</sup>A careful, documented account of the struggle of agricultural workers to achieve reasonable wages is given in Pedley, *op. cit.*, pp. 28-70.

important results for rural emigration. Firstly, it endows the workers in agriculture with a higher mobility and tends to facilitate emigration from the countryside during periods of agricultural depression. Secondly, since there are proportionally few owner-occupied agricultural holdings, opportunities for individual advancement are more slender, and more-ambitious country workers are discouraged from working on the land. There are historical reasons for these conditions. The policies of some European countries have emphasized the value to the nation of peasant-farming communities both from social and political considerations—supplies of food and tough soldiers are guaranteed in peace and war. British policy has tended to be the reverse of this, and few attempts have been made to help small farmers who in peacetime have been left to fend for themselves just when foreign competition was keenest. As a result, British farmers have turned to branches of farming where they were least likely to be affected by competition, namely dairying, which also has the advantage from the employers' point of view of needing fewer workers.

Throughout the twentieth century there has been little unemployment in agriculture, even in depression years, which suggests that farm workers have been leaving the land faster than they could have been made redundant by modifications in farming techniques, particularly mechanization.

The new townsmen and townswomen enjoying less arduous working conditions, greater companionship, higher wages for shorter hours, and better health and welfare services for their children have not been backward in telling their friends and relatives at home about the advantages of urban living. The increased personal mobility of our own time has facilitated both the transfer of workers and the dissemination of this information.

#### CONTINUING DEPOPULATION

The first young man to leave the village is considered venturesome and, maybe, a little foolish, although envy may also find a place. But gradually, as others follow, factory work comes to be regarded as "superior" to farm work, and those who remain behind are thought to be lacking in initiative, if not actually stupid.

The average age of the population of the countryside is higher than for townspeople. It is particularly noticeable in areas which have been losing population. For example, while the population of Glendale Rural District in Northumberland declined from 8,500 to 7,500 between 1911 and 1951, the proportion of people over sixty-five years of age increased from 7.9 to 12.8 per cent.<sup>9</sup> This aging of the population can be directly related to the emigration of younger people to the towns.

<sup>9</sup>J. O'Connor and G. P. Wibberley, "Social Problems in the Development of Livestock-rearing Areas," *Agriculture*, LIX (1953), 654-700.

Once emigration has begun from whatever cause, factors are introduced which tend to maintain the movement. Fewer people to a given area usually means fewer services especially the profit-making kind, for example shops, and a more-expensive (or delayed) provision of the nonprofit-making variety, for example public utilities. In their turn, fewer services make for fewer people. Where there are plenty of busses, loss of some local services may be countered by journeys to town, whilst others may be supplemented by delivery vans and traveling shops. But the areas where the effects of depopulation are most serious are usually those with, in addition, poor transport facilities and few delivery services. This cumulative deterioration in standard of services is noticeable in many areas of persistent depopulation.<sup>10</sup>

Not so long ago, every village had its team of craftsmen—carpenter, painter, wheelwright, blacksmith, thatcher, saddler. Today, some rural areas have been almost denuded of crafts offering alternatives to agricultural employment. An Agricultural Land Service investigation suggests that by 1970 agriculture in the Lincolnshire Wolds area will occupy 70 per cent of all men of twenty-one years and over if the present labor force remains unchanged.<sup>11</sup> This is twice the proportion measured by Orwin in a group of villages in Oxford.<sup>12</sup>

As far as the agricultural industry is concerned, mechanization has anticipated or plugged many gaps caused by rural depopulation in the United Kingdom, but can it continue to do so indefinitely? "Between 1952 and 1954 the number of combine harvesters, milking machines, tractors and beet harvesters in the United Kingdom—to name but four labour-saving machines—increased by 83,000. In the same period, the labour force decreased by 43,000. There is, clearly, a level below which the manpower in the industry cannot be economically reduced."<sup>13</sup>

Rural depopulation is regarded in some quarters as wholly bad. Yet we should have had very serious unemployment problems to contend with if there had been no emigration to the towns. Improvements in farming techniques during the twentieth century have not only reduced the number of workers needed, but output has been raised even when land was going out of cultivation. A hundred years ago, one efficient farm worker could produce sufficient food for five people; by 1910, he could produce enough for eight; and by 1950, agriculture had reached the stage where one worker could feed and partially clothe approximately fifteen others. It does not follow, automatically, that fewer and fewer people will be needed in the countryside. Changes in farming practice in response to technical developments or economic or political

<sup>10</sup>Willatts and Newson, *op. cit.*, p. 449.

<sup>11</sup>G. P. Wibberley, "Some Aspects of Problem Rural Areas in Britain," *Geographical Journal*, CXX, pt. I (1954), 53.

<sup>12</sup>C. S. Orwin, ed., *Country Planning* (1944), pp. 15-17.

<sup>13</sup>D. Hodsdon, Editor of *The Land Worker*, in a private communication.

pressure could lead, however, to more intensive use of the land farmed at present and a greater use of marginal and neglected land. The demand for labor so created and encouragement by adequate wage differentials could initiate a drift of workers to the land from the towns. The terms "margin of cultivation" and "margin of profitability" are not synonymous, and land capable of development for agriculture is not fixed in amount; neither are the workers employable in agriculture fixed in number.

Rural emigration has helped to make the United Kingdom the most urbanized nation in the world. It has created major conurbations which, together, house between a third and a quarter of the total population of England and Wales, and, of greatest significance, it has created two groups of people, an urban majority and a rural minority each with a different outlook on life. Since 1939, new forces have helped to weaken the barriers between the two groups and have also tended to halt or restrain the tide of depopulation. Some of the neglected country towns have gained new industries. Rural district councils have built more council houses than urban district councils. Country bus services, particularly at the start and end of the working day, are more frequent than, for instance, in 1939, and more town workers are commuting. Towns and their shopping, professional, and entertainment services are available to, and are used by, many more country people than ever before. The tide of depopulation has receded with every new bus service and every improvement in communication. Nevertheless, depopulation has been banished from the Midlands and southeastern England through the development of metropolitan urbanism.

# Research Notes

## URBAN INFLUENCE AND THE EXTENT OF PART-TIME FARMING

ONE of the most important changes now taking place in American rural life is the continued increase in the nonfarm employment of farm operators. Since 1930, when information on this subject was first included in the Census of Agriculture, the number and proportion of farm operators working off their farms has shown a steady upward trend in all regions of the United States. The increasing number of such part-time farmers is particularly noteworthy since the total number of farm operators has declined heavily during this period.

In attempting to gain an initial understanding of this phenomenon, research workers have made some generalizations concerning the location of part-time farmers. Thus, the relative concentration of these operators in general low-income farming areas, as for example are found in northern Wisconsin and Minnesota and the upper peninsula of Michigan, or in areas of West Virginia or Kentucky, has been noted. Perhaps more emphasis, however, has been placed on the prevalence of part-time farming in areas adjacent to urban and metropolitan centers.<sup>1</sup> In fact, a recent symposium on the rural fringe problem included an article on off-farm employment as well as several other references to the subject.<sup>2</sup> This practice often is cited as one of the forces affecting the current process of fusion of rural and urban life.

A documentation of the association between the extent of part-time farming and urban influence is given in the recent important book by Duncan and Reiss, *Social Characteristics of Urban and Rural Communities*. In the chapter entitled "Urban Influences on the Rural Population," the results are presented of an analysis which was carried out by placing all the counties of the United States in four groups according to degree of urban development and comparing various population characteristics for these groups. The percentage of farm operators working off their farms 100 days or more in 1949 was shown to decline regularly with decreasing degree of urbanization, for the four groups of counties.<sup>3</sup>

<sup>1</sup>For reference to the location of part-time farmers see: I. G. Davis and L. A. Salter, Jr., *Part-Time Farming in Connecticut* (Connecticut Agr. Exp. Sta. Bull. 201; Storrs, 1935), pp. 15-24; J. V. McElveen and K. L. Bachman, *Low Production Farms* (USDA Agr. Inf. Bull. 108; Washington, 1953), pp. 9-11; Ronald Mighell, *American Agriculture, Its Structure and Place in the Economy* (New York: Wiley, 1955); B. L. Melvin, "The Place of the Part-Time Farmer," *Rural Sociology* XXIV (1954), 281-286.

<sup>2</sup>*Farm Policy Forum*, Winter, 1957. See especially Harold G. Halcrow, "Increasing Off-farm Employment," pp. 19-22.

<sup>3</sup>Otis Dudley Duncan and Albert J. Reiss, Jr., *Social Characteristics of Urban and Rural Communities, 1950* (New York: Wiley, 1956), pp. 166-168.



## OBJECTIVES AND METHOD

It is the purpose of the present paper to show something of the nature of the urban influences associated with the extent of part-time farming in a relatively homogeneous, prosperous farming area. For this purpose a group of 42 Wisconsin counties was selected for examination. These are all in the dairy-type farming region and are closer to either Milwaukee or Madison than to any other city of 100,000 or more.<sup>4</sup> A part-time farmer is defined in this study as a farm operator who reported working off his farm 100 days or more during 1949.

Three dependent variables are used in the study: the per cent of all operators classified as part-time; the per cent of all commercial farm operators classified as part-time; and the per cent of all noncommercial farm operators so classified. Data in the 1950 Census of Agriculture make possible the separate computation of the proportion classified as part-time for operators whose value of farm products sold was either more or less than \$1200 in 1949. This, then, is the criterion differentiating "commercial" from "noncommercial" farmers here.

Certainly it is difficult to operationalize a concept such as urban influence. This is particularly true when one is limited to data provided in the census and must deal in terms of ecological areas such as counties. After careful consideration three basic types of measures were selected out of several possible ones which, it is postulated, are indexes of some form or forms of urban influence. Thus, urban influence on the rural population is taken to be a function of the degree of urban development in an area, which can be measured both absolutely and relatively, and a function of the distance of the area from larger urban centers.

As Davis and Golden point out, the degree of urbanism in an area can vary independently of the absolute number of people living in cities.<sup>5</sup> Thus, a county containing only a single small town may, in one sense at least, be highly urbanized, if few people in the county live outside of that town. Therefore some relative measure of urban influence is called for. The one used in this study is the per cent of the population in the county living in cities of more than 1,000.<sup>6</sup>

On the other hand, it may certainly be contended that city life and the

<sup>4</sup>Thus, Wisconsin counties in the low-income northern area were not included nor were three counties in the southwest corner of the state considered to be in the corn belt. Also excluded were counties in the west nearer to Minneapolis-St. Paul than to Madison or Milwaukee. The type-of-farming classification used was that presented in Carl C. Tayler, *et al.*, *Rural Life in the United States* (New York: Knopf, 1950), p. 414.

<sup>5</sup>Kingsley Davis and Hilda H. Golden, "Urbanization and the Development of Pre-industrial Areas," *Economic Development and Cultural Change*, II (Oct., 1954), 6-24. See also note in Vernon W. Ruttan, "The Impact of Urban-Industrial Development on Agriculture in the Tennessee Valley and the Southeast," *Journal of Farm Economics* XXXVII (Feb., 1955), 39-40.

<sup>6</sup>One of the reasons for using 1,000 instead of a larger number is the fact noted by Duncan and Reiss that many village population characteristics are more similar to those of small urban places than to those of the remaining rural nonfarm segment (Duncan and Reiss, *op. cit.*, p. 109).



extent of urban influence will be affected by the absolute size of an urban population. For this reason a measure utilizing absolute numbers is included, the log of the number of people in the county living in cities or towns of greater than 1,000 population.

Finally, it is recognized that urban influence may well extend across county boundaries and that this may especially be true in the case of very large centers. Thus, the third measure of urban influence used is the distance from the center of each county to the nearest community of more than 100,000.<sup>7</sup> If urban influence is felt in this way, one would expect a more or less regular decline in influence with increasing distance from the metropolitan center.

While it is clear that these measures of urban influence fall into three logically distinct types, it is not expected that they will operate independently of one another. Hence, a multiple regression analysis has been carried out using in turn the three measures of the extent of part-time farming as the dependent variables. The partial regression coefficients, in standard measure, of the resulting regression equations are utilized, for they give an indication of the contribution of each urban index, independent of the variations in the other indices, toward the explanation of variations in each dependent variable.

In addition, coefficients of multiple correlation have been obtained to show the combined ability of the three urban factors to explain variations in the extent of part-time farming.

This analysis has been carried out not only for all the counties considered but separately for counties nearer to Madison than to Milwaukee and vice versa. In this way the measure of distance from the nearest city of 100,000 or more can be employed considering these two cities individually, and it is possible to compare all the measures of urban influence for two contiguous geographic areas. For convenience, these two groups of counties are referred to as the Madison and the Milwaukee hinterlands, without thereby implying that they accurately delimit the major areas of metropolitan dominance for the two communities.

Since the units under examination constitute a 100 per cent sample of a specifically defined universe, tests of significance have not been carried out. Thus, inferences have not been made so as to relate these results to a larger universe; rather, the results are presented here as hypotheses to be tested in other areas and for other years.

As it is likely that some of the assumptions of multiple regression analysis have not been completely met, the results should be interpreted with caution. This especially applies to small differences observed between partial regression coefficients.<sup>8</sup>

<sup>7</sup>In the initial analysis another measure of this type, the distance to the nearest community of more than 25,000, also was used. The partial regression coefficients for this measure, however, obtained from the solution using all four urban variables, were positive or nearly zero in every case. Hence, for the populations examined, this variable does not contribute independently as a measure of urban influence to the explanation of variations in the extent of part-time farming.

<sup>8</sup>See Donald J. Bogue and Dorothy L. Harris, *Comparative Population and Urban Research Via Multiple Regression and Covariance Analysis* (Oxford, Ohio: Scripps Foundation, 1954), ch. i.

## RESULTS

The degree of association between the three urban factors considered together and each of the three dependent variables is shown in Table 1, computed for all the counties as well as separately for those in the Madison and the Milwaukee hinterlands. These multiple correlation coefficients are seen to vary rather widely, though all are of at least moderate size. They show that the extent of part-time farming is more highly related to the measures of urban influence for noncommercial farmers than for commercial farmers. This is true for the total group of counties as well as for the Madison and Milwaukee hinterlands considered separately. Also it is seen that coefficients are higher for the Milwaukee than for the Madison hinterland, and that this is true for each of the three dependent variables.

An indication of the relative importance of each of the three urban factors independent of the others, in their association with the extent of part-time farming, is given by the partial regression coefficients in Table 2. A comparison of the rows of this table reveals no consistent over-all pattern in the regres-

*Table 1.* Multiple correlation coefficients between three measures of urban influence and the extent of part-time farming, by economic class of farmer, for selected counties in the Madison and Milwaukee hinterlands, 1950

	All counties	Madison hinterland	Milwaukee hinterland
All farmers . . . . .	.54	.49	.82
Commercial farmers . . . . .	.53	.50	.69
Noncommercial farmers . . . . .	.78	.72	.88

*Table 2.* Partial regression coefficients (in standard measure) for the regression of the extent of part-time farming upon three measures of urban influence, by economic class of farmer, for selected counties in the Madison and Milwaukee hinterlands, 1950

	% population in places of more than 1,000	Log population in places of more than 1,000	Distance to nearest city over 100,000
<i>All counties</i>			
All farmers . . . . .	.13	.41	-.02
Commercial farmers . . . . .	.17	.40	.11
Noncommercial farmers . . . . .	.30	.40	-.20
<i>Madison hinterland</i>			
All farmers . . . . .	1.10	-.84	.39
Commercial farmers . . . . .	.69	-.31	.44
Noncommercial farmers . . . . .	.24	.46	-.10
<i>Milwaukee hinterland</i>			
All farmers . . . . .	-.42	1.14	-.08
Commercial farmers . . . . .	-.22	.83	-.11
Noncommercial farmers . . . . .	.31	.16	-.58

sion coefficients for these factors. There do, however, appear to be some characteristic differences between the commercial and the noncommercial farmer groups, and between the Madison and Milwaukee hinterlands.

Thus, distance to the nearest community of 100,000 or more is more important in explaining variations in the extent of part-time farming for noncommercial than for commercial farmers. This is indicated by the fact that all partial regression coefficients of this factor for the commercial farmer segments are either positive or are negative numbers considerably smaller than the corresponding negative coefficients for the noncommercial farmer segments.

Similarly, this factor is more important for the Milwaukee than for the Madison hinterlands, as is seen by comparing the coefficients of the respective segments for these two hinterlands.

For all farmers considered together, the relative measures of urban influence are more important than the absolute measure of the distance measure within the Madison hinterlands, while the absolute measure is more important than the other two in the Milwaukee hinterland. The same difference between hinterlands is shown for the commercial farmer segment, while for the noncommercial segment the absolute measure is most important within the Madison hinterland and the distance measure most important within the Milwaukee hinterland.

The differences observed here between hinterlands may well be related to the greater urban development in the Milwaukee area. Milwaukee was more than eight times larger than Madison in 1950. Further, the Milwaukee hinterland had 88 per cent of its population, or more than 1,755,000 people, living in cities and towns of more than 1,000 in that year, while 66 per cent of the population of the Madison hinterland, including only about 708,000 people, were so classified.

### CONCLUSIONS

Variations in the multiple correlation coefficients in Table 1 between economic and geographic categories have indicated differences in the degree of association of urban influence with part-time farming, as these two concepts are measured here. But more important has been the unexpected finding, based on Table 2, that the nature of this relationship is different for many of these categories. The particular pattern of results obtained may well be specific to the urban variables selected for analysis out of many possible ones. Yet if these do measure, however imperfectly, somewhat different aspects of urban influence, the unlike partial regression coefficients, which were obtained for various economic and geographic categories, should indicate divergent relations between urban influence and part-time farming. Thus, one may infer that the nature of the association between urban influence and part-time farming may be quite different in two contiguous rural areas and further that in these areas this association may be different for farmers grouped according to the economic size of the farm operation.

With the means available, it is not possible to go further and explain with any confidence just why this particular pattern of results has been obtained. One of the biggest obstacles to making such an explanation is of course the fact that the extent of part-time farming is dependent upon decisions made by individual operators while the data used here are for county units. Further-

more, it is undoubtedly true that part-time farmers constitute a heterogeneous group, even when subdivided into commercial and noncommercial categories. The next step, then, in learning more about urban influence and part-time farming should be made through well-designed sample surveys in which specific hypotheses are tested. Only in this way can the broad census categories be supplemented and refined and research proceed with individuals rather than ecological areas taken as the basic units.

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### RELATIONSHIPS BETWEEN AGRICULTURAL AND ECONOMIC INDICES AND RURAL MIGRATION

THE 1950 population censuses showed continuing changes in the rural-urban population and differential population losses of rural areas. These, and similar findings, have stimulated attempts to discover isolable social and economic indices related to this increased magnitude and differential nature of net migration from rural areas.<sup>1</sup> In 1952 the writer, using the direct vital statistics method, attempted to assess the extent of net gains or losses due to migration in Missouri and in economic regions within that state.<sup>2</sup> A further attempt was made to identify economic and agricultural indices related to percentage gain or loss in net migration within these economic regions and within individual counties. None of the indices examined were highly related to net migration.

In 1951 Hagood and Sharp had published a similar study on rural-urban migration in Wisconsin in the census decade 1940-1950.<sup>3</sup> The purpose of this research note is to consider differences and similarities in the findings and conclusions in the writer's and the Hagood-Sharp reports. Hagood and Sharp attributed greater influence on net migration of selected economic and agricultural indices than was found by the writer. In their 1951 publication Hagood and Sharp said:

Migration to and from rural areas in Wisconsin is affected by both agricultural and nonagricultural developments. Decreasing labor requirements in agriculture during the decade tended to act as a "push" factor producing migration from farms, and the increasing industrial employment opportunities tended to act as a "pull" factor.<sup>4</sup>

More specifically, they note four major types of movements tending to cause a failure of rural areas to retain their natural increase.<sup>5</sup> These are, in brief:

1. Movement away from farms of farm-operator families as reflected in a reduction in the number of farms.

<sup>1</sup>Specific examples appear below. An outgrowth of this general interest was a projected attempt by the North Central Regional Committee for Population Research to isolate patterns of internal mobility in participating states.

<sup>2</sup>A. D. Grimshaw, "Internal Migration in Missouri, 1940 to 1950" (unpublished Master's thesis, University of Missouri, 1952).

<sup>3</sup>Margaret J. Hagood and Emmit F. Sharp, *Rural-Urban Migration in Wisconsin, 1940-1950* (Wisconsin Agr. Expt. Sta. Res. Bull. 176; Madison, August, 1951).

<sup>4</sup>*Op. cit.*, p. 25.

<sup>5</sup>*Ibid.*

2. High rates of replacement of rural farm males, leading to an excess of young farm men in the event of no net out migration. (As will be seen below, actual data on replacement indices are available only in the Missouri study.)

3. A reduction of farm labor due to increased mechanization of farming activities reflected in farm wage expenditures. (In the comparisons made below the indirect index of per cent change in number of tractors has been substituted for that of farm wage expenditures.)

4. Movements of individuals living in rural non-farm areas to larger population centers as farmers come to rely on services provided in these larger centers. (No direct data on this factor is available in either the Missouri or the Wisconsin study and it is not considered in this note.)

In the Missouri study it was thought that net migration ( $X_0$ ) might be related to similar factors. Scatter diagrams were plotted of county changes in rural population due to migration with various agricultural and economic indices ranged on the X axis. These latter included (1) replacement rates for rural-farm males aged 25-69 years ( $X_1$ ), (2) per cent change in number of farms ( $X_2$ ), (3) per cent change in number of tractors per 10,000 acres of cropland harvested ( $X_3$ ), (4) per cent change in adjusted value of farm products sold ( $X_4$ ), (5) per cent change in Farm Operator Living Level Index ( $X_5$ ),<sup>6</sup> and (6) the FOLLI for 1950 ( $X_6$ ).<sup>7</sup> Although the two areas cited as the poorest in the state showed the greatest net losses, examination of these scatter diagrams showed no relationship between these selected indices and rural migration.<sup>8</sup> The range, both of the indices and of the rates of change of population due to migration, was sufficient to guarantee a widespread distribution of points.

Missouri and Wisconsin vary as social, cultural, and economic state units, and even greater dissimilarity appears in the composition and characteristics of their component economic regions. There are sufficient similarities between

Table 1. Kendall's correlation coefficient ( $\tau$ ) for net migration with selected agricultural and economic indices, Missouri and Wisconsin rural counties, 1940-1950

State	Variable	$X_1$	$X_2$	$X_3$	$X_4$	$X_5^*$	$X_6$
Missouri (N 110)	$X_0$	.39	.15	.27	-.17	.26	-.31
Wisconsin (N 66)	$X_0$		.30	.48	.09	.39	-.36

$X_0$  = net migration

$X_1$  = farm-operator replacement index

$X_2$  = per cent change number of farms, 1940-1950

$X_3$  = per cent change number of tractors per 10,000 acres cropland harvested, 1940-1950

$X_4$  = per cent change adjusted value farm products sold, 1940-1950

$X_5$  = per cent change FOLLI, 1940-1950

$X_6$  = FOLLI, 1950

\*Two counties combined in Missouri and one county missing in Wisconsin on FOLLI indices.

<sup>6</sup>Hereafter referred to as FOLLI.

<sup>7</sup>All except the last index are based on change over the census decade, 1940-1950.

<sup>8</sup>Grimshaw, *op. cit.*, chs. iii, v.

the two states and among their component subunits, however, to raise seriously the question whether differences in migration patterns and in the relationship of such patterns to selected agricultural and economic indices are real differences or can be attributed to differences in data handling and in interpretation of findings. For this reason it was decided to take the basic data of both studies and treat them statistically in the same way.

Table 1 shows Kendall's correlation coefficient  $\tau^9$  for selected economic and agricultural indices with net migration for Wisconsin and Missouri rural counties.<sup>10</sup> In all but one of these series, data are directly comparable.<sup>11</sup> While there is some similarity in the coefficients relating net migration and the FOLLI<sup>12</sup> for the two states, it will be noted that in the three other comparable pairs the differences are larger; in two of them, those relating to per cent change in number of farms and in number of tractors, the coefficient in Wisconsin is nearly double that of Missouri. There has, as yet, been no significance test developed to examine differences in Kendall's coefficient between two populations. It may be noted, however, that both series represent universes (in this case the total populations of rural counties within the two states) and it is doubtful whether in any case the two series could be treated as samples from a larger population.<sup>13</sup> Interpreting the coefficients as measures of disarray,<sup>14</sup> however, it would seem that the Wisconsin indices are, generally, more related to net migration from rural counties than are those of Missouri.

An examination of the coefficients on the original indices suggested influence of the agricultural and economic indices on each other. Particularly this was true in the case of the two indices including the FOLLI as a base.<sup>15</sup> For this reason it was decided to compute the Kendall coefficient of partial correlation for two sets of series. Results are shown in Table 2. In the three-way relationship among net migration, per cent change in number of farms, and per cent change in number of tractors, the sharp variation in the relationship between per cent change in number of farms and per cent change in number of tractors

<sup>9</sup>Maurice G. Kendall, *Rank Correlation Methods* (London, 1948). For a simplified summary of the techniques explained in Kendall's volume, see Sidney Siegel, *Nonparametric Statistics for the Behavioral Sciences* (New York, 1956), pp. 213-238.

<sup>10</sup>Although computation of Kendall's  $\tau$  is somewhat tedious with  $N$ 's as large as those in this study, it was chosen rather than other correlation measures for three reasons: first, because the series used are not expressed in absolute numbers but as per cents or indices; second, some of the values are quite extreme, making the choice of a nonparametric measure of relation more useful; third, Kendall's  $\tau$  has the advantage not possessed by Spearman's  $\rho$  that it can be used in partial correlation. An example of the use of standardized absolute numbers and regular linear correlation techniques can be found in C. Horace Hamilton, "Population Pressure and Other Factors Affecting Net Rural-Urban Migration," *Social Forces*, XXX (1951), 209-215.

<sup>11</sup>There are no data reported in the Hagood-Sharp study comparable to the Farm-Operator-Replacement Index used in the Missouri report.

<sup>12</sup>For basic data on these indices and some comments on their history and construction see Margaret J. Hagood, "Farm-Operator Family Level-of-Living Indexes for Counties of the United States: 1930, 1940, 1945, and 1950" (Washington, D.C.: U.S. Dept. of Agr., Bureau of Agricultural Economics, May, 1952 [mimeo]).

<sup>13</sup>E.g., as cluster samples from the United States universe of rural counties.

<sup>14</sup>Kendall, *op. cit.*, pp. 7-8.

<sup>15</sup>The FOLLI, 1950, and the per cent change in the same index, 1940-1950.



Table 2. Kendall's partial coefficient ( $r_{xyz}$ ) for net migration with selected agricultural and economic indices, Missouri and Wisconsin rural counties, 1940-1950\*

State	Correlation	$X_2X_3$	$X_0X_2X_3$	$X_0X_3X_2$	$X_0Y_2$	$X_0X_2X_0$	$X_0X_3X_0$
Missouri (N 110)		-.04 (.15)	.17 (.27)	.27 (.26)	-.31 (-.31)	-.25 (.26)	.18 (.26)
Wisconsin (N 66)		.34 (.30)	.17 (.48)	.42 (.48)	-.58 (-.36)	-.18 (.39)	.24 (.39)

Variables as listed in Table 1.

\*Figures in parentheses are original two-variable correlation coefficients.

caused some regression toward a central value in the relationships between these two variables and the dependent variable of net migration. The negative correlation in Missouri, which though very slight is in sharp contrast to the fairly high correlation in Wisconsin, can probably be attributed to differences in patterns of land use and to original base of mechanization in the two states.

A sharply different pattern emerges when the effects of the common bases of the FOLLI in the FOLLI itself (1950) and in per cent change in FOLLI (1940-1950) are partialled out. In both cases there is a reduction in the correlation coefficients on the original variables when the relationship between FOLLI and per cent change in FOLLI is eliminated. However, the higher correlation between these two related indices in Wisconsin is responsible for a more precipitate drop in the partial correlation in that state. These differences may again be attributed to varying bases for the indices in the two states and to greater changes in Missouri.<sup>16</sup>

Because of the nonparametric nature of Kendall's coefficient, the data here treated are not amenable to analysis of variance. However, certain conclusions may tentatively be drawn from the data presented in this brief report: (1) Considerable caution should continue to be exercised in generalizing findings in one state regarding effects of agricultural and economic factors on net rural migration. (2) While there are consistent tendencies for relationships to appear between selected indices and net migration, these relationships are small and cannot be given as important a causal role as has been sometimes attributed to them. Moreover, at least some of the correlation may be attributable to relationships between the agricultural and economic indices themselves. (3) On the basis of findings in these two states it would appear that mechanization as reflected in per cent change in number of tractors and changes in FOLLI are most influential among factors studied in determining patterns of net migration in rural areas.<sup>17</sup>

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<sup>16</sup>It may be noted, incidentally, that the inverse relationship between FOLLI and per cent change in FOLLI affords indirect confirmation of the Lively-Tauber hypothesis of "differential awareness of opportunities." See Charles E. Lively, and Conrad Tauber, *Rural Migration in the United States* (Works Progress Administration Res. Monogr. 19, Washington, D.C., 1939).

<sup>17</sup>This is not inconsistent with the findings of Hamilton, *op. cit.*, who found high



## SOCIAL CLASS STATUS OF THE SMALL FARM FREEHOLDER IN THE ENGLISH MIDLANDS

SOCIAL class relationships have undergone considerable change in England since World War II. Much attention has been given to changes in economic well-being and social status in urban populations where the widespread gains of the working class are most obvious.<sup>1</sup> Less is known about recent changes in rural areas.

The method employed in this study was, first, participant observation while my family and I lived in a rural community in Worcestershire, England. We shared an old Tudor farmhouse with a small farm freeholder for seven months. The second source of data was in the use of a pencil and paper rating device.

One accustomed to the life and manners of the Midlands can identify a small freeholder by sight. His customary garb—his working and marketing clothes—are as distinctive in the country as are the bowler hat, black coat, and stiff collar of the clerks in the city. The small farmer traditionally wears a colored dress shirt, detachable collar, tie, wool trousers stuffed into the tops of rubber boots, and a felt hat which has seen better days. While working about the farm, he wears a khaki smock which may be replaced by a short coat on market days. This garb identifies him, not only as a farmer, but also as a gentleman. In relation to the great Victorian dichotomy of English society—gentlemen and others—the small farmer is definitely in the preferred category.

I was interested in translating this traditional status into contemporary social class terms. My observations were guided by criteria which have frequently been used in the process of social evaluation in relation to stratificational position, i.e., property ownership, type of residence, education, and style of life, including informal associations.

Small freeholders in this section of England commonly own from a few acres to possibly thirty or forty acres of land. Milk cows, swine, and chickens are the source of most of their produce. A few farmers have developed rather large garden plots. The ownership of farm land has been the basis of their status as gentlemen and continues to be an important factor determining their contemporary position in society.

The most common type of small farm residence in this area is an old brick correlations for net migration with change in crop acres (for specific crops) and in population pressure as represented by a farm-operator replacement index. It is probable, however, that the different types of agriculture to be found in North Carolina (and even Missouri) as contrasted to Wisconsin prohibit a direct comparison of correlations based on cropland acres harvested even should such data be available for Wisconsin and Missouri rather than per cent change in number of farms.

It may be noted that the fairly high correlation in Missouri between farm-operator replacement index and net migration tends to confirm Hamilton's finding in this area.

<sup>1</sup>See Richard Hoggart, *The Uses of Literacy: Aspects of Working Class Life with Special Reference to Publications and Entertainments* (London: Chatto and Windus, 1957); G. D. H. Cole, *Studies in Class Structure* (London: Routledge and Kegan Paul, 1955); T. Brennan, "The Working Class in British Social Structure," *Transactions of the Third World Congress of Sociology*, III (1956) 106-112. Also see Joel B. Montague, Jr., "Research Related to Social Class in England," *American Sociological Review*, XVII (April, 1952), 192-196; Montague and B. Pustilnik, "Prestige Ranking of Occupations in an American City with Reference to Hall's and Jones' English Study," *British Journal of Sociology*, V (June, 1954), 154-160.

or half-timbered house which was originally built sometime between the sixteenth and eighteenth centuries. The Tudor houses consisted originally of a relatively large hall downstairs with a fireplace across one end and two or three bedrooms upstairs. These buildings have had kitchens and frequently other rooms added in later times. Most of the houses are now connected with county water and sewage lines (the house we lived in was not), and all have electricity. This does not mean that they are "modern." Heating is frequently by open fire in each room, and kitchens and bathrooms have an antiquated makeshift appearance. They do not compare favorably with middle-class homes in the towns and cities and are indeed primitive when compared with the new working-class public housing.<sup>2</sup> However, many of the farmhouses lend their occupants high prestige, because they are "period" houses set in attractive grounds, and kept in good repair.

Thus, when these houses are assessed upon a contemporary scale of living comforts, they are certainly near the bottom. Nevertheless, they are high-status houses and are considered so by both their occupants and others in the community.

Formal education is difficult to assess. However, language is frequently an indicator of status and class<sup>3</sup> and is often related to the type of school the person has attended. The small farmer speaks the dialect of the particular region. It is not the language of the grammar-school or college graduate, nor is it the vernacular of the farm laborer or town worker. One may say that the small farmer speaks correctly the traditional language of the area. In terms of social status, he is thus set off from both the working and the educated classes.

The small farm freeholder has a distinctive way of life. He makes his living by manual labor and at the same time tries to live like a gentleman. He is condescending to day laborers and feels out of place with both the urban working and middle classes. He shows deference to the remaining squires and large estate holders, but I think he may picture himself as a smaller version of the same.

There is a rather clear class division in the community between the farmers on the one hand and the farm laborers and other working-class people on the other. The local Spring Fete was organized and presented with very little working-class support or participation. The class division is also illustrated by informal association at two rural pubs in the area. One of the pubs was entirely working class, having no "lounge bar." The other pub had the usual class-typed dual facilities. The farmers patronized the "lounge bar" of the second pub almost exclusively. I observed no association, either formal or informal, which could possibly be interpreted as an expression of social equality.

<sup>2</sup>The small farmers resented the rather recent building of a small public housing project in the community. They all feared that another such project would be built near their property. Their objections were ostensibly on aesthetic grounds. However, the public housing was occupied exclusively by working-class families, and there was reason to believe that the farmers' objections were expressions of class prejudices—or possibly more accurately, of snobbery.

<sup>3</sup>See T. H. Pear, *English Social Differences* (London: Allen and Unwin, 1955), pp. 85-118.

The foregoing descriptive impressions are based upon what I could learn through both impromptu and prearranged interviews and upon a knowledge of the community which was acquired through associations made by participating in organized and informal community activities. Schools, doctors, hospital, pubs, and horse races, community fetes, children's play groups, visiting, and gossip, not to mention the daily round of shopping, all contributed to insights and at least to a limited understanding of these rural people.

The second approach to the problem was the use of an occupational ranking device. This was a two-page questionnaire listing the same fifteen occupations on each page, under two time periods—1918–1939 and 1939 to the present. Accompanying each list was a diagram showing six class levels of equal size. The levels were designated “upper upper,” “lower upper,” “upper middle,” “lower middle,” “upper working,” and “lower working.” On the first page the respondent was asked to designate the class level he thought proper for each occupational group in each time period *using prestige and influence in the community as the criteria of placement*. On the second page the procedure was the same except that the criteria of placement were *income and economic well-being*. The twenty respondents did not form a sample of any kind, but rather functioned as judges. The factors taken into consideration in the selection of these judges were length of residence in the community, their knowledge of the community, and their understanding of the project. The respondents were selected from both the farming area and the small town which was the market center of the community. Although among them were persons of widely varying social status, no judge was selected from the group of small farm freeholders.

The data from these rankings indicated that nearly all of the respondents considered small farm freeholders either lower-middle or upper-middle class on the basis of prestige and further showed but little change between time periods. However, upon the basis of income and economic well-being, the respondents indicated upper-working-class status in the first period (1918–1939) and lower-middle- or upper-middle-class position at the present time. Thus, these data revealed that recent improvements in economic well-being had brought the small farmer up to his traditional middle-class prestige level.

This is interesting when compared with changes in social class status of other occupational groups in the community.<sup>4</sup> For example, in relation to large farm estate holders, although most rankers showed status continuing in the upper-middle or upper social class on the basis of each criterion, there was some evidence of downward mobility in both status and economic well-being. Farm laborers, on the other hand, had moved up from the lower working class to the upper working class both economically and in prestige.

The case of the small farm freeholder was unique in that his previously established middle-class prestige not only has been maintained but has recently been vindicated by economic gains.

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<sup>4</sup>Joel B. Montague, Jr., “Social Change Related to Belated Industrialization in an English Town,” in American Sociological Society, *Abstracts of Papers* (New York: The Society, 1958).

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## Book Reviews

Allan, W. Scott. *Rehabilitation: A Community Challenge*. New York: Wiley, 1958. xvi, 247 pp. \$5.75.

This book is intended for laymen or planning groups who are looking for significant facts which will support prospective and collective action toward rehabilitation programs. It begins with a six-page chapter "The Concept of Rehabilitation" and follows with chapters on "the size of the problem," the roles of various workers, the services of a rehabilitation center, its values and costs, and finally its relation to the world community and the future. The book concludes with an extensive bibliography of fifteen pages listing current references (nearly all dating from 1953), followed by an index of names and a subject index.

The author develops the community concept of rehabilitation in two major ways. First a "team approach" among professional workers is needed for their services to contribute to rehabilitation. Secondly the rehabilitation program must be supported by and in turn serve a group in a geographic area, in a community. The "team approach" is well developed, and specific chapters indicate how many different professional talents and services are involved.

The chapters on community support are not clear or specific about a minimum size of community. No suggestions are made as to what size community can support a program or how small communities may work together.

The book is aimed at the general reader and does succeed in presenting a review of the development of rehabilitation concept and methodology. The hope of the author that it will stimulate individual or community thought and action toward more realistic and effective rehabilitation services represents an optimism in keeping with the subject.

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Botkin, B. A., ed. *Lay My Burden Down*. Chicago, Ill.: University of Chicago Press, 1958. xxi, 299 pp. Paper, \$1.65; cloth edition available.

The subtitle of this book is *A Folk History of Slavery*. A more fitting subtitle might have been *An Autobiography of Slavery*, since it is composed of first-person narratives by former slaves. It thus furnishes an intimate picture of slavery seen from the point of view of the people most affected by that institution.

These selections are taken from more than ten thousand manuscript pages of material gathered by the workers of the Federal Writers' Project during the depression. The workers were unemployed writers, newspapermen, and researchers.

The interviews were conducted throughout the Southern and border states. The interviewers were guided by simple instructions and by questions designed to stimulate the narrators to tell their stories. At first, an attempt was made to record the stories in dialect, but this was abandoned because of the difficulty of harmonizing the various dialects found in different sections of the South. The idiom is used only when it seems to express meaning best.

The narratives in the present volume are arranged under five main headings: "Mother Wit," "Long Remembrance," "From Can to Can't," "A War among the White Folks," and "All I Know about Freedom." Each of these has a number of subdivisions and includes a wide variety of topics.

The sociologist may be interested in a different division of the material as it relates to (1) the slavery period from 1621 to 1863; (2) the immediate effect of the Emancipation Proclamation; and (3) the reconstruction period. The intimate insights into these periods of social development and change help interpret controlled studies that have been made.

The book was originally published in 1945. This new printing is made at a time when the role of the negro in our national life is extraordinarily important. It is also valuable to preserve a part of our folk literature that otherwise might be lost.

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Carr, James McLeod. *Glorious Ride*. Atlanta, Ga.: Church and Community Press, 1958. 156 pp. \$2.50.

This biography of Henry Woods McLaughlin is of interest to students of rural leadership and rural life and especially to those in the town and country church movement. It follows the late Dr. McLaughlin through more than fifty years in the ministry, describing an early phase of moving about from church to church, a middle period of distinguished service as "country preacher" and agriculturalist in Virginia, and a final phase of twenty-one years as a denominational and interdenominational rural church leader.

Henry McLaughlin was a big man physically, mentally, and spiritually. He was a creative pioneer as pastor, teacher, and administrator. He was honored for his work in the pastorate by Washington and Lee University, for his "meritorious service in promoting the development of agriculture" by Virginia Polytechnic Institute, and for his teaching and writing on the rural church by the Presbyterian Church in the United States.

The story of Henry McLaughlin's "glorious ride" is feelingly presented in a series of anecdotes, sometimes loosely hung together, by the man who succeeded him in the Town and Country Work of the Presbyterian Church in the United States.

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Halpern, Joel Martin. *A Serbian Village*. New York: Columbia University Press, 1958. xxii, 325 pp. \$6.00.

This is one of the few books to appear since World War II which gets down to the bedrock of social reality in the Balkans. Many books in economics and political science have treated the area or a single country, but few of them have concentrated upon the daily life of the people, which should be the basis for much social science insight. Dr. Halpern and his wife, in spite of what many might consider a political environment handicapping social science exploration, went to Orašac in the Šumadija section of Serbia and did a comprehensive village description in the tradition of anthropological community studies. Their study not only makes interesting, informative reading but is enriched by numerous sketches and photographs which make the village come to life.

In evaluating such a book for a sociological audience one might ask three questions: First, what new knowledge does it add to the storehouse of social science? Second, what developments in methodology does it represent? Third, what new theoretical contributions does it make or what earlier formulations does it support or question?

The new knowledge that is added is a detailed description of how older patterns have changed in the wake of the events during and after World War II in one part of Yugoslavia. Dr. Halpern has made skillful use of the great help to anyone interested in comparative family study, particularly since historical perspective and has placed Orašac carefully into its regional setting. His treatment of kinship and the family is detailed and should prove of great help to anyone interested in comparative family study, particularly since the South Slav *zadruga* figures prominently. The dynamics of community life are touched upon, but the writer found it expedient to avoid much inquiry into the workings of the political process, although his observations about it are of interest. One will find in the book the standard treatment of the material culture, individual life cycles, religion, holidays, and folk beliefs.

Methodologically, the study reports no new developments but represents an effective application of accepted field-study techniques: establishment of rapport and participant observation; systematic interviewing; use of available statistical data; tape recordings of folk songs and instruments; photographs and sketches of people and artifacts. No questionnaires were used, but essay contests among the school children provided helpful written material. Furthermore, the author made full use of previous studies by Yugoslav writers, a fact of importance since Yugoslavia has an enviable record of ethnographic investigation going back many years.

Social change provides the central theoretical theme, but this is handled primarily on a descriptive rather than an analytical level, which is common in studies of this sort. In other words, no propositions are set forth, although chronicled changes are related to the Western commercial and industrial revolution which has been having an impact in rural Serbia for more than seventy-five years. The author accepts the view that a peasant society is a half-society in that it must be tied in with an urban—usually a dominant segment, but he indicates that in the case of Serbia the rural or folk part is the more basic element of the two and that the urban part emerged from the peasantry.



The reviewer cannot refrain from concluding on a personal note. In 1945-1946, while serving as Agricultural Attache in the American Embassy in Belgrade, he asked permission of the Foreign Office to spend a week or two in some Serbian village to observe daily life there and to compare it with his findings in other Balkan countries. There was no reply to this request. The changing political climate in Yugoslavia, with its relaxation of many controls upon the peasants and the abandonment of agricultural collectivization, is indicated by the willingness of the authorities to permit this young American social scientist and his wife to spend a year (1953-1954) in Serbia in the study which they have so successfully pursued.

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Harlan, Louis R. *Separate and Unequal*. Chapel Hill: University of North Carolina Press, 1958. xii, 290 pp. \$6.00.

This monograph provides an illuminating historical account of public school campaigns and racism in the four Atlantic seaboard states, Virginia, North Carolina, South Carolina, and Georgia, during the period 1901 to 1915. The report is of real significance in view of the relevance of this period to the development of culture patterns that today remain entrenched and influential in the negro-white relations of these and other states.

Central in this historical analysis is the story of the impact of two forces: (1) the white supremacy movement, which started in the nineties, and its solidification into laws and customs; (2) the efforts of a group of Northern philanthropists to help Southern educational leaders toward a goal of broad public education.

The chapter titles in the book are: "The Uses of Adversity: An Introduction," "Seedtime: North Carolina in the Nineties," "The Southern Educational Board: A Regional Approach to Public Education," "North Carolina: A School House a Day—for Whites," "Virginia: The Machine and the Schools," "South Carolina: Inequality as a Higher Law," "Georgia: Public Schools and the Urban-Rural Conflict," "Educational Expansion and the Context of Racism." Also included is an excellent "Essay on Sources," which is designed as a guide for readers and researchers to some of the more relevant and important writings on the subject treated.

In the author's words, "the dual significance of the period studied here is that the first vigorous, large-scale efforts were made by native Southerners to improve their schools according to standards prevailing among their Northern neighbors and that at the same time the gap of discrimination widened between white and negro, town and rural schools."

The events and experiences in each of the four states are carefully analyzed and documented, revealing the nature of the struggle for public schools. This struggle was one of maneuvering in state legislatures, manipulation of appropriated funds, and crusades mostly ineffective. While the schools of 1915 in these states were much improved over those of 1900, the author contends that by the end of this period, the system of "separate and unequal" schooling was essentially complete.

The book should be of interest and value to students of educational



history, negro-white relations, and social movements, as well as to the general public.

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Hoffsommer, Harold. *The Sociology of American Life: An Introductory Analysis*. New York: Prentice-Hall, 1958. xi, 628 pp. \$7.50.

Rural sociologists will be interested in this book because it is a *general* sociology written by a man who has long had a close identification with rural sociology. The author is a recent editor of this journal and is now president of the Rural Sociological Society. Several recent introductory textbooks in general sociology have almost completely ignored rural sociological literature and the problems of rural life, but this one reflects the author's familiarity with the rural field in the references cited, the illustrative problems and materials chosen, and the organization and emphases of the book.

Another distinctive feature is the attempt to combine an introduction to sociology with an analysis of American society. Of course most introductory sociologies do this to some extent, in that they reflect an American bias. But one trend has been toward the introduction of more materials from other cultures in order to attain greater cultural relativity and objectivity. Hoffsommer's book is clearly not in this tradition; he uses practically no material from primitive societies or other cultures. Yet it is not quite in the Robin Williams tradition of analyzing American society either, in that the distinctive characteristics of our society are not the focus.

The book has twenty chapters, organized in four major parts: "The American People"; "Groups in the United States"; "American Institutions"; and "Communication, Personality, and Cultural Change." While there is considerable logic in this arrangement, one result is that some crucial concepts are not introduced to the student until near the end of the book.

Every chapter has reading selections, from one to three in number, many of them quite appropriate, but in total of somewhat uneven quality and inclusiveness. One wonders—about the inclusion of these as well as about the current fad for books of "readings"—whether authors may be defeating one potentially useful by-product of sociology classes, that of teaching students to use the library.

A. LEE COLEMAN

*Departments of Sociology  
and Rural Sociology  
University of Kentucky*

Hoult, Thomas Ford. *The Sociology of Religion*. New York: Dryden Press, 1958. xii, 448 pp. \$5.25.

This book may be studied with profit by a wide range of readers. The sociologist will find that it is well documented. The bibliography exhibits breadth of subject matter and depth of thought and scholarship. The theoretical basis of the text is maintained consistently throughout.

Readers not technically trained in sociology—college students, ministers, and interested laymen—will also find the book quite understandable because of the author's style. At the beginning he carefully sketches his own pre-suppositions and basic theories, giving accurate, illustrated definitions. Each chapter is prefaced by a detailed introduction and concluded with an artful summary. The reader is not left in doubt as to the aim or the progression of the author.

The theoretical background of this presentation is a personally modified sociocultural determinism with a functional integration. The author illustrates his points with sufficiently varied citations from world religions to make the text universal; he uses ample documented material and personal observations from American religious life to make his book pleasingly plain to American readers.

The content of the book is developed along successively expanding topics—basic theoretical considerations, religion as a social institution, religion and other social institutions. The other social institutions include economics, politics, education, the family, science, and social stratification. The concluding section, "Looking Backward and Forward," is especially thought-provoking.

The rural sociologist will be particularly interested in the chapter concerning rural and urban religious trends and the changing role of the church in a society becoming more and more urban-oriented.

LLOYD A. TAYLOR

*Department of Sociology*  
*Phillips University*

Landis, Paul H. *Introductory Sociology*. New York: Ronald Press, 1958. xxviii, 726 pp. \$6.50.

There are a number of outstanding features in this new introductory text. Foremost is the optimistic and genuinely humane spirit that permeates the book. A very convincing introduction presents sociology as a science that can solve social problems. By frequent use of case histories and current events, sociology is made immediately relevant to student experience. For each section there is an annotated list of appropriate films. The selected readings are unusually comprehensive.

On the other hand, the writing has the quality of extemporaneous speech rather than polished exposition. Many paragraphs are poorly organized. A number of summaries are ineffective condensations of the chapters. Few concepts are precisely and explicitly defined. Impressions of their meaning gained from context and illustrative material are likely to be variable and inaccurate. In spite of the emphasis upon the concept of culture and the numerous cross-cultural citations, the text contains many value judgments premised on the American value system. The case for sociology as a science is undermined by the many generalizations that are not sufficiently qualified. While students should find the book interesting and challenging reading, instructors will have to provide some of the systematic foundation usually contained in a text.

MARY ALICE ERICSON

*Department of Sociology*  
*Gustavus Adolphus College*

Lantz, Herman R. *People of Coal Town*. New York: Columbia University Press, 1958. ix, 310 pp. \$5.75.

This book presents an analysis of life in a coal-mining community. Although not stated explicitly, the locale would appear to be somewhere in the coal area of southern Illinois.

The author attempts, quite successfully, to see the community in its total setting in the light of the interrelationships of cultural patterns and institutions. To the reviewer, this holistic method seems essentially that used in typical anthropological community studies of literate societies. However, the appendix describing methodology points out the specific ways in which the various disciplines—history, sociology, social psychology, psychology, as well as anthropology—were used in the study. Direct quotation from informants' responses is used extensively to illustrate the various points made. To allay the fears of anyone who might get the impression that such material represents isolated comments which suggested the points rather than illustrations for them, the author is quick to explain that the quotations used represent remarks typical of those made by respondents to the subject being discussed.

The body of the book traces the transformation of Coal Town from a small, submarginal, agricultural community to a prosperous, though turbulent, boom town and finally, as the coal plays out, to an economic derelict. The approach is analytical and objective, yet there is a warmth and emphatic overtone that brings the reader close to the plight of those caught in this situation. The analyst probes beneath the superficial levels of behavior to bring out the motivation for the interaction, frequently conflict, among the protagonists of this drama. The themes and values affecting the various ways of looking at the world of the "natives," the migrants from the hill country of the South, and the immigrants from southern Europe are exposed. The way in which differing value systems affect the behavior of these diverse peoples as they attempt to adjust to each other and to their unsympathetic environment is effectively brought out.

WILLIAM S. FOLKMAN

*Department of Agricultural Economics and Rural Sociology*  
*University of Arkansas*

Mannheim, Karl. *Systematic Sociology: An Introduction to the Study of Society*. Ed. by J. S. Erös and W. A. C. Stewart. New York: Philosophical Library, 1958. xxx, 169 pp. \$6.00.

The posthumous publication of a scholarly book from manuscripts not considered ready for publication by the author in his lifetime involves serious risks. If in addition the editors think it necessary to cut the manuscript in order to preserve a coherent logical text, they assume a considerable responsibility. In the present case this responsibility is increased by the fact that the lectures on which this volume is based "represent" Mannheim's "earliest teaching after his arrival in England." Without access to the original manuscript sources it is impossible to judge the quality of the editors' work; it may very well be that the passages omitted (see p. xi) might have given more substance to some chapters, which, though excellent in their brief formulation of theoretical principles, are a bit meager in content (e.g., ch. X on classes).

Following the example of Max Weber, Mannheim attempted a synthesis of formal sociology (which Georg Simmel so masterfully handled) with historically oriented sociology (which Mannheim's adversary Hans Freyer considered to be the only valid kind). Mannheim believed that each approach had its place depending on the subject of inquiry (p. xxv). Consequently, he divided the field of sociology into (A) systematic and general sociology and (B) historical sociology.

The present text should be regarded as an outline of the former. In contrast to Max Weber, who had little use for the psychology of his time, Mannheim begins his treatise with two chapters on man and man's psychic equipment, in which he utilizes the work of the psychoanalytic schools as well as that of the Gestalt psychologists and other schools of individual and social psychology. The second part is devoted to a discussion of the "most elementary social processes," e.g., social contact, social isolation, competition, co-operation, and the like, and this is followed by three chapters on the sociology of groups and classes.

Part four, "Social Stability and Social Change," is based on a complete manuscript of lectures; it concludes with an excellent statement and critical discussion of Marx's theory of social change.

RUDOLF HEBERLE

*Department of Sociology*  
*Louisiana State University*

Morland, John Kenneth. *Millways of Kent*. Chapel Hill: University of North Carolina Press, 1958. xxii, 291 pp. \$5.00.

This is the report of a study of "mill village sub-culture" in the Southern Piedmont region. It is a counterpart to Hylan Lewis's already published *Blackways of Kent*, a similar study of the "negro sub-culture" in the same community. It is to be followed by a study by Ralph Patrick, Jr., entitled *Townways of Kent*, which is concerned with the "town sub-culture." As one reads *Millways of Kent*, one is led to believe that a fourth study of the "farm sub-culture" would then complete the cultural analysis of the Kent community, assuming that rather segmented studies can provide a way to study the total culture of a community.

This volume suggests that there really are four subcultures in this community, each one operating pretty much independently of the other. There are the farmers who still live on farms that are steadily increasing in size and in complexity of operation. There are the townspeople living in the "better" parts of town, largely trade and professional people and their families. Then there are the mill people living together, often in mill-owned houses located not too far from the mill. Most of these mill people were formerly tenant farmers who thought they saw increased economic opportunity working in the mill or migrants from other mill villages. Lastly, there are the negroes, who live together in the negro quarter and about whom little is said in this study. If one can gather a thesis from this analysis, it is that the mill culture is a sort of interstitial stage between the farm and town culture and that, given time, the full transition will be made.

This book provides an unusually fine insight into the home and family life of mill people and a very revealing analysis of the impact of religious "sects" on their attitudes and personality. It probably fails to provide equal insight in other areas, such as informal educational experiences and economic values. This, however, only reflects one of the limitations of the participant observer technique—he sees only what his experience and training qualify him to see.

Morland is certainly direct and most literal in some of his descriptions and quotations. As a consequence the entire volume is as interesting as a well-written novel. Certainly there is no rule saying that education should be uninteresting, and the author is to be commended for not being dull. For anyone interested in securing a better understanding of small community life in the United States, this book provides good reading.

A. F. WILEDEN

*Department of Rural Sociology*  
*University of Wisconsin*

Moser, C. A. *Survey Methods in Social Investigation*. New York: Macmillan, 1958. xiv, 352 pp. \$5.25.

Preparation of textbooks for European universities, stimulated by American practice, is rapidly spreading. In this instance one finds confirmed again the observation that the ratio of research output to methodological introspection is rather higher in Europe. Most to be appreciated, perhaps, is the usual compactness, lucidity, and grace of British writing displayed by Professor Moser.

It would be difficult to maintain that any one of a half-dozen textbooks on survey and field methods has a clear superiority. Much the same ground is covered by all.

The rationale of surveys, their suitability for data gathering, and their potentialities for generating generalizations receive especially precise attention in this book. For American readers a special benefit lies in the methodological history of social surveys in Britain. By the same token, we will find the bibliography helpful in turning up studies that received little attention in our journals.

The bulk of this book is taken up with two topics: sampling and questionnaire-interview techniques. There is no happy mode of expounding the intricacies of sampling in brief compass without extensive mathematics, but Moser has done it about as satisfactorily as one might hope. Similarly, he has supplied a most adequate introduction to the intricacies of questionnaires, the pitfalls of interviewing, and sources of response errors.

On one subject Professor Moser might be charged with shirking his task, analysis and presentation of data. After all, the feasible analyses and the intended summarization strongly affect the whole planning of a study. Moreover, the literature on this phase of field research has become unusually plentiful in recent years. Pedagogically, also, students develop more interest in methods when they can visualize the end product with some fullness.

C. ARNOLD ANDERSON

*Department of Sociology*  
*University of Kentucky*

Rosenberg, Morris. *Occupations and Values*. Glencoe, Ill.: Free Press, 1958. ii, 158 pp. \$4.00.

The book reports on a questionnaire study of 4,585 college students in the United States in 1950, and a repeat questionnaire administered in 1952 to 1,571 Cornell students. To the writer's knowledge, this is the most extensive sociological study of occupational choice to date. The general approach of the study is that of explaining in sociopsychological terms why the sample of college students made the first choices they did and then changed them over a two-year period. The emphasis upon *values* as the key to understanding the process of deciding about one's career is appropriate in a society in which the individual is relatively free to chart his course. The study supports this contention of relative freedom in that 78 per cent of the students desired to enter the occupations they actually expected to enter.

This study illustrates the usefulness as well as the limitations of the concept "value" in understanding man's choices in life. One problem in the use of values in understanding decisions about occupations, as indeed about other decisions, is the identification and selection of the values to be used. Starting with an empirical identification of values as "the requirements for an ideal job or career," the author derives three major value orientations: "people-oriented," "extrinsic reward-oriented," and, "self-expression-oriented." These appear to meet that middle range level of conceptualization most useful in explaining career choices and also defensible theoretically. However, the conceptual distinction of these from the so-called *attitudes* of "faith in people" and "desire to get ahead" is not quite clear.

One of the most interesting and unique chapters of the book deals with the resolution of conflicts between *desired* and *expected* occupations. One frequent type of such conflict is that of the son of the well-to-do businessman who expects to go into business but doesn't want to. His values are not in keeping with business ideology, yet his grades are not high enough to permit him to go in other directions. It is interesting to note that "values" changed to agree with "expectations" more frequently than "expectations" changed to agree with "values" (p. 123). This finding raises the question as to whether the values themselves are the most potent determinants of occupational choice or whether the interactional situation in which family, friends, and the students' abilities interact to result in a consistency of "desires" with "expectations."

EUGENE A. WILKENING

*Department of Rural Sociology*  
*University of Wisconsin*

Sanders, Irwin T. *The Community: An Introduction to a Social System*. New York: Ronald Press, 1958. xvi, 431 pp. \$6.00.

There is such a great need for a book which treats the concept community within the framework of theoretical developments of the last decade that sociologists may approach this book with the hope that it has been developed primarily for the professional. The reader needs to be prepared, therefore, for the statement on the first page of the Preface: "The book has been written primarily for those with only an introductory background in sociology."

With this as the primary audience, the author has done a remarkable job



of presenting a well-documented and systematic treatment of the community concept within a carefully designed frame of reference. As anyone who knows the writings of this author would expect, the book is written in a manner to hold the interest of a wide variety of readers. It should serve its primary objective commendably, that of a textbook for undergraduate courses. Likewise, for the wide variety of persons who are becoming interested in community theory and practice, it provides a well-designed and superbly written book. It provides a systematic frame of reference for community analysis, and major guidelines for community involvement and action. At the same time, it is the best work now available to professionals as an over-all guide for community analysis.

Definitions and technical treatment do not overwhelm the nonsociological reader. In fact, while the social system is the most important concept of the book, the professional has to search for the author's definition. Yet page 108 produces a clear-cut definition of the social system without using the difficult Parsonian "collectivity," or the Loomis, Beegle, McKinney "elements." The author states under the subtitle, "The Group as a Social System":

Any social unit that is a continuing, going concern, that has its own identity, and that can be separated—at least for purposes of analysis—from other units can be viewed as a social system.

Basic to the author's thinking are the concepts that the community is composed of a multiplicity of subsystems (along with groupings of aggregates) and that the community system cannot be understood without dealing with the interlinkages in the social relationships of these subsystems.

If this book has a weakness, it lies in its attempt to appeal to too broad an audience. As a handbook, it may deal a bit too much with structure and process concepts. For instance, the Park and Burgess social process concepts are used in their traditional manner in two chapters, both "The Community as an Arena of Interaction" and "Health and Social Welfare."

The professional reader does not need the large number of illustrations which the author has used to introduce almost every new idea. For instance, the chapter "Local Government" begins as follows:

A visitor to a Greek village, whether he arrives by donkey, bus, or private car, finds himself under the curious but friendly gaze of those who happen to be in or passing through the central village square. If he goes to the coffee-house to sit in the shade and order a cool drink, he does not need to wait long before the village officially welcomes him in the person of the President of the Community Board. Here he sees local government in operation in a lively, hospitable way. A stay of even a short duration will show other examples of local government.

The author knows through his years of teaching and consultation experience that such an introduction will help to hold the attention of those being initiated to the field of community. Still it does illustrate the almost never solved problem of textbook writing, especially in an area like community, which has suffered from too much "practice" and too little theory and systematic research. One would like to see this brilliant author put his excellent communication skills to the task of a monograph on community theory for his colleagues.

CHRISTOPHER SOWER

*Department of Sociology and Anthropology  
Michigan State University*



Sanders, Irwin T., ed., and Enno Kraehe, Philip E. Mosely, Edmund O. Stillman, Ernest Koenig, Nicholas Spulber, and Jozo Tomasevich. *Collectivization of Agriculture in Eastern Europe*. Lexington: University of Kentucky Press, 1958. x, 214 pp. \$5.00.

In April, 1956, the University of Kentucky was host, and the Ford Foundation sponsor, to a three-day Conference on Collectivization in Eastern Europe, which brought together specialists on that area and about fifty social scientists (including the present reviewer) possessing varying degrees of familiarity with that part of the world. Dr. Sanders, editor of the volume, served as co-ordinator of the conference.

The book is composed mainly of the papers prepared by the keynoters (the co-authors and Branko M. Peselj) prior to the sessions, together with Dr. Sander's introduction and some appended materials prepared by two conference participants.

These papers combine to present the background and substance of the vastly significant struggle between the principles and practices of modern communism, and the traditionalistic, familistic, land-owning, and land-loving peasant in the lands to the west of Russia. As a matter of policy, communist governments have urged or forced collectivization to (1) increase efficiency and production, (2) release workers for industry, and (3) create rural "worker" groups which could identify politically with urban labor groups. The peasant has resisted heroically. But, as Sanders points out, "Herein lies the dilemma. If the present holdings do not become more efficient, . . . then the peasant will become even more disadvantaged and the national regimes, linked to his productivity, will be forced into more and more drastic methods of insuring their economic survival. . . . But if the peasant is pushed too fast into forms of production which he does not like, . . . he dooms them by his dogged non-cooperation, which leads to lower productivity on a national scale than that obtained in the previous system of peasant farming" (p. 5).

Throughout this little book one is made aware of the vital aspects of the contest between traditional peasantry and communist rationality, and of the stark drama inherent in the statistics and social data coming from eastern Europe at this time.

RAYMOND PAYNE

*Department of Sociology and Anthropology*  
*University of Georgia*

Smith, Elmer Lewis. *The Amish People*. Photographs (16 pp.) by Melvin J. Horst. New York: Exposition Press, 1958. 258 pp. \$4.00.

The first scientific study of Amish life (Walter M. Kollmorgen, *Culture of a Contemporary Community: The Old Order Amish of Lancaster County, Pennsylvania* [USDA Rural Life Studies No. 4, September, 1942]) was fruitful in terms of instigating further sociological research. The present work, also a study of the Amish group centering in Lancaster County, was produced by Elmer Smith while he was on the faculty of Albright College at Reading, Pennsylvania. His doctoral dissertation was on the same subject ("A Study of Acculturation in an Amish Community," Syracuse University, 1955), but he does not state the relation of it to the present work.

The author has attempted a rather comprehensive description of the Amish

society in general rather than any single facet of its culture. The material is adapted for the general reader and provides him with a composite description of Amish life. Twenty-one chapters are presented in five sectional units: church, family, farm, fellowship, and future. Since two earlier extensive reports of the same community, by Kollmorgen and Calvin G. Bachman (1942), are both out of print, one of the chief merits of this new work is that so comprehensive a description is available to the public. The author, as a participant-observer, has gained a great deal of knowledge on the intricate ways of Amish life.

As a sociologist and as a former member of the Amish social system, this reviewer must point out some aspects of the treatment that need to be evaluated and reviewed. The careful student will be disappointed at the limited use of sources. A primary, accessible, and reliable source, *The Mennonite Encyclopedia* (Vol. I, 1955), is nowhere cited. Regional studies made outside the area by Harry F. Weber and A. Monroe Aurand are used, while those of Melvin Gingerich, Maurice Mook, Gertrude Huntingdon and others, which would have provided the author with more current and authoritative sources, are not mentioned.

The most serious shortcoming in the opinion of this reviewer is the attempt of the author to fit Bible passages to Amish practices. This may be one of the limitations of the participant-observer method. The observer expects to find a "rational" in the in-group structure, and if he fails to find it he frequently reads values into the data. The writer must have spent considerable energy in finding quotations from the Bible to account for Amish practices. The Amish will no doubt find this reasoning revealing and acceptable, but Amish life is largely one that is sanctioned by tradition and is not so existentially and rationally perpetuated. One example illustrates this point: the author states that the Amish bride "is dressed in a white garment for the only time during her life, for the Scripture says.....'she shall be arrayed in fine linen, clean and white' (Revelation 19:7-9)" (p. 76). It happens that Amish brides wear clothes no different from their usual Sunday dress, and although unmarried girls wear white capes and aprons, they do not wear white dresses. Brides could have worn a special white garment for their wedding day only if it had been in keeping with Amish practice to wear it out of traditional sanction. The white parts of costume that are still worn have been retained from the time that their forefathers in the Palatinate and Switzerland spun their garments from flax. Quoting Biblical passages in support of traditions is done by the Amish leaders, but frequently this is not done until some "out-grouper" makes the observation.

In his attempt to undercut the legends, in repeating "heresays," and in stating the pros and cons for the evidence of bundling, it seems to this reviewer that the writer leaned unnecessarily toward topics that contribute little to social science or to a clear-cut understanding of a misunderstood people.

The author succeeded well in his attempt to quantify sociological data found in the county courthouse and elsewhere. Many previous studies have not attempted to give sex ratios at birth (p. 63), surnames (pp. 67, 83, 117) and given names (p. 86), age at first marriage (p. 70), extent of home deliveries (p. 81), fertility ratios and child spacing (pp. 85, 112), longevity (p. 116),

family size (p. 116), and occupational mobility (p. 150). Unfortunately there is no index. The photographs are excellent.

JOHN A. HOSTETLER

*Department of Sociology*  
*Western Michigan University*

Vidich, Arthur J., and Joseph Bensman. *Small Town in Mass Society: Class, Power and Religion in a Rural Community*. Princeton, N.J.: Princeton University Press, 1958. xvi, 329 pp. \$6.00.

This is a sociological study of a small (1700) up-state New York rural community given the pseudonym of Springdale. It is not, however, just another general description of local life. One of the enduring credits of the study, it seems to this reviewer, is that it succeeds in keeping its focus on phenomena which may be classed as community per se. Eschewing the effort to be comprehensive, the authors narrow their attention to the functional dynamics of community decision making as these occur within the socioeconomic structure of a local area and are influenced by the interconnections between this local structure and the external but enveloping mass society. Problems of the interrelation of sociocultural and personality integration also receive attention.

The study is divided into four sections. The first two chapters carry descriptions of the integrating symbols of public community life—historical backgrounds and the “images” currently held by the people in the community. Next are two chapters on major institutional realities, socioeconomic class and general relationships between Springdale and mass society. In “Class and Mass in Politics,” the third section, action processes in each of the three major decision jurisdictions—the village, the town, and the school district—are delineated and specific connections between actions in these local jurisdictions and in state and national politics are described. Finally, in a section entitled “Reconciliation of Symbolic Appearances and Institutional Realities,” the roles in community integration of the churches, of leadership, and of personality adjustment mechanisms are detailed. A useful index completes the volume.

Throughout, there is rich detail illuminated by careful organization, clear writing, and frequent “middle-range” functional interpretation. The day-by-day workings of community policy formation are traced through the actions of both “general” and “special” leaders each differently oriented by unique relationships to certain jurisdictions and to other parts of the community. Further, these operations are shown to be finely geared within the limits and demands of the external societies of state and nation, which, in turn, are observed to be influenced by the functioning of Springdale and other local societies.

In spite of the coherence and unity of purpose which the authors achieve, several omissions appear unfortunate to this reviewer. Thus, except for the one statement on the jacket that “the authors spent three years observing the daily life” of this community, there is no discussion of the methodology of the study. One’s discomfort at this is partly, but not entirely, overcome by the authors’ obviously skillful handling of the data which conveys a feeling of

reality and validity. In addition, though the lack of exposition of the particular theory used in the study does not mar the clarity of exposition, certainly its absence diminishes the depth and breadth of the study as a sociological treatise.

Even so, this volume contains a great harvest of concrete detail and of significant generalization. In its blend of structure and action analysis *Small Town in Mass Society* seems to this reviewer the best community study yet produced.

WILLIS A. SUTTON, JR.

*Department of Sociology*  
*University of Kentucky*

Wach, Joachim. *Sociology of Religion*. Chicago, Ill. University of Chicago Press, 1958. xii, 419 pp. \$1.95.

This is the eighth impression of a book originally published in June, 1944. Earlier (1931) Dr. Wach had written a treatise in German on the sociology of religion. The present volume exhibits real scholarship and careful documentation of ideas presented.

Religion is defined as "the experience of the Holy," the matrix from which the Good, the True, and the Beautiful are derived. This volume is a study of the interrelation and interaction of religion and society. The author's thesis is that, while religion begins with a concern about relation to deity, it always makes for social integration. Wherever there is genuine religious experience, groups tend to form and grow. In fact, the author asserts in his conclusion that religion plays a decisive role in social integration. He even goes so far as to say that perfect integration of a society never has been nor can be achieved without a religious basis.

Religion expresses itself in doctrine, forms of worship, and in social relationships. These social relationships make necessary the formation of rules of conduct and of morals which are rooted in the doctrine and worship.

Chapters IV and V contrast the organization of society according to "natural groupings" and its organization into "specifically religious" groupings. By "natural groups," he means the grouping of people according to kinship, locality, race, nation, sex, age, or status. By "specifically religious" he means the grouping of people in fellowships which are unified around a religious personality or idea. The rest of the book is concerned with the problems which arise from the conflict between these two groupings.

C. MORTON HANNA

*Louisville Presbyterian Theological Seminary*

Wilensky, Harold L., and Charles N. Lebeaux. *Industrial Society and Social Welfare*. New York: Russell Sage Foundation, 1958. xi, 401 pp. \$5.00.

Wilensky and Lebeaux have written a comprehensive and well-documented (426 sources) book which traces the impact of industrialism on American society. Likewise, it deals with the impact of industrialism in creating the institution of social welfare, which is the instrument intended to cope with social problems ostensibly caused by industrialism.

The book is an expanded answer to favorable acceptance of the authors' monograph, *Industrialization and Social Welfare*, written in 1955 under the auspices of the Russell Sage Foundation for the United States Committee of the International Conference of Social Work.

The work is fundamentally a sociological approach to social order, social change, and the rise of a profession to cope with the new order and the new change. Part I is a well-written chronological presentation of the Industrial Revolution, capitalism and American culture, industrialism, urbanism, and integration and their impact on society.

With the stage set, Part II deals with the social problems, deviant behavior and family services which are a result of social change induced by industrialization. In the chapter on Welfare Auspices and Expenditures it is ironical to note that "big" technology has produced "big" social problems handled by "big" social welfare supported by "big" business. This is dramatized by showing that public civilian welfare expenditures for the period 1954-1955 was 5.8 per cent of the gross national product (\$373,100,000,000).

Part III deals with the organization of welfare services in the United States. Here welfare services were analyzed in terms of bureaucracy, specialization, and power structure. The final treatment of professionalism in general and the emergence of a social work profession, specifically, is crescendo finale to a useful work.

In conclusion the authors attempt to resolve the internal debate between the professionals and the social reformers by posing the proposition that "to go professional is to corrupt the reform tradition; to neglect the social causes of maladjustment and broader programs of prevention is to abdicate professional responsibility." The authors feel that professionalization and specialization will aid in building a body of consultants who will advise, counsel, and administer broad social welfare and community organization reform activities, rather than encourage the retreat of the professional into the middle-class shell of bureaucratic security. They want social work "to build more solid bridges to the social sciences" so that the interplay of knowledge will guarantee that the social reformer has a professional product to sell.

A theoretical postscript is included in the Appendix, "Industrialism, Society, and Social Change." It is recommended that the reader read this section first, for it provides a complete theoretical frame of reference which will aid materially in understanding the book itself.

VERL R. W. FRANZ

Personnel Department  
National Advertising Company  
Brookfield, Illinois

Winch, Robert F. *Mate Selection. A Study of Complementary Needs.* New York: Harper, 1958. xix, 349 pp. \$5.00.

The preface of this book states as follows: "We marry for love. . . . Then what is love? Figuratively, our society throws up its hands. The ordinary mortal can only experience it. To describe it requires the talent of a poet. And to *explain* it—impossible." The objective of this book is to accomplish this impossible task. The author begins by assuming that every human being

has needs. He therefore concludes that one loves those persons who provide gratification of one's needs and thereby bring pleasure. What kind of person brings pleasure? The author states:

Beyond the obvious considerations that the person ought to be of the opposite sex and usually of about our own age, race, religion, etc. we come to the important discovery that at a basic emotional and motivational level that person ought to be different from ourselves—not randomly different, but different in a way determined by the nature of our own needs. The statement of this idea I call the *theory of complementary needs in mate-selection*.

The book attempts to test this hypothesis.

Twenty-five couples were used as a sample, and these individuals were interviewed by means of open-ended questions. The content analysis of the interviews was performed independently by two members of the research staff, and the sum of the two raters final rating was taken as the final data for the analysis.

The author should be complimented for the care with which this study was carried out, both in regard to the establishment of the hypothesis and its testing. The study concludes that of the five sets of data on the twenty-five couples, three support the general hypothesis of complementary needs in mate selection. The other two do not support the hypothesis, but neither do they show a counter trend. The questions remaining which would need further testing would be: (1) Would this hypothesis apply in other kinds of universes other than the one which this sample represents? (2) How reliable were the interviewing techniques? The work deserves serious study by any student of marriage and the family.

REED H. BRADFORD

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Edited by LOUIS J. DUCOFF\*

## Bulletin Reviews

Bertrand, Alvin L., and Donald G. Hay. *Farmers' Expenditures for Health Care in 1955*. USDA Agr. Inf. Bull. 191; Washington, D.C.: Agricultural Marketing Service, June, 1958. 33 pp.

Based on data obtained in a comprehensive survey of farmers' expenditures, this report describes farmers' expenditures for health care in 1955. Information was obtained from approximately 4,000 family units which were carefully selected in accordance with scientific sampling techniques. Data are presented for the United States as a whole and then are classified by geographic divisions.

Not only are the total expenditures for the United States stupendous but health care alone involves huge sums and ranks fifth in expenditures which farm families make. It is exceeded only by housing, food, clothing, and transportation. The farm families interviewed spent an average of \$240 in 1955 for health care, including voluntary health insurance premiums.

As other studies have shown, there was a wide range of expenditures for health care, a fact which supports the logic and advantage of some kind of health insurance or prepayment plan for farm families. Although the average expenditure was \$240, as stated above, 1 per cent of the families made no expenditures at all for health care; 31 per cent spent from \$1 to \$100; 42 per cent, from \$100 to \$299; 15 per cent, \$300 to \$499; and 11 per cent, \$500 and over.

For the United States as a whole 25 per cent of the expenditure went for physicians and surgeons, 18 per cent for drugs and vitamins, 18 per cent for insurance, 13 per cent for hospitals, 11 per cent for dental care, 5 per cent for eye care, and 10 per cent for "other" health expenses. There were some variations from this distribution of percentages among the different regions. The most evident variation was in the south, which spent less for insurance (15 per cent), less for dental care (9 per cent) but more for drugs and vitamins (21 per cent).

In terms of dollars, the average amount spent for physicians other than surgeons was \$49 per family. The average cost for surgeons for families who had surgical expense was \$114. Hospital costs ran higher than other health services. The average for hospital bills was \$148. Drugs averaged \$29 in 1955 for all families.

This bulletin is a comprehensive factual report about expenditures for health care; as such, it makes a significant contribution to rural sociology. It documents the fact that health care is a major financial concern of the family

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as well as a personal concern. It will become the responsibility of rural sociologists to interpret the facts contained in this publication and to relate them to a sociological frame of reference.

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Christiansen, John R., C. Milton Coughenour, Louis J. Ducoff, and A. Lee Coleman. *Social Security and the Farmer in Kentucky*. Kentucky Agr. Expt. Sta. Bull. 654; Lexington, Jan., 1958. 52 pp.

Skrabaneck, R. L., Loyd B. Keel, and Louis J. Ducoff. *Texas Farmers and Old-Age and Survivors Insurance*. Texas Agr. Expt. Sta. Bull. 886; College Station, Jan. 1958. 12 pp.

In 1951-1954, the Farm Population and Rural Life Branch, USDA, and the state colleges or universities of Texas, Kentucky, Connecticut, and Wisconsin joined in a series of studies of farmers' preparedness to retire and to support their survivors. A shocking state of ill-preparedness on both counts was found to be generally prevalent; moreover, and contrary to allegations from respectable quarters that farmers were opposed to social security coverage, these surveys found that a majority were interested. As social science field surveys go, these proved to be monumental in their immediate impact upon social policy. Had it not been for the evidence at hand in the 1954 hearings on the social security program, it is not improbable that the Congress would have persisted in the image of farmer self-dependence based upon his accumulation of net worth through ownership of land, equipment, and livestock. Without the contrary evidence to dispel that image, the far-reaching social security amendments of 1954 quite possibly would have been for another day and likely a much later one.

The 1954 social security amendments extended coverage to all farmers having net income from farm self-employment of \$400 or more and to all except very temporarily employed hired farm workers. Participation under the newly extended coverage commenced January 1, 1955. The purpose of the Texas and Kentucky surveys herein reviewed and of additional surveys in Maine and Iowa was to determine how farmers had responded to the opportunity (and obligation) of the old-age and survivors coverage made available to them.

Sample interviews were made in counties of contrasting income levels—two counties in Texas and three in Kentucky. Nine-tenths of the Kentucky interviewees had social security registration cards (as of mid-1956), but many had obtained them through prior off-farm employment. In the higher income sample, 6 per cent of the farmers had insufficient income to be eligible to pay the OASI tax; in the lower income sample, the below-minimum-income proportion was 35 per cent. Of those eligible to pay OASI taxes in 1955, 68 per cent and 43 per cent of the Kentucky high- and low-income samples, respectively, had actually paid. Consequently, through ineligibility and non-participation, approximately three-fourths of the Kentucky low-income sample farmers were outside the program in 1955.

In the Texas sample, 70 per cent of the operators interviewed were partici-

pating in OASI either as taxpayers or as benefit recipients. Of the non-participating remainder, approximately half had less than the minimum income to be eligible, and half were eligible but had failed to pay the tax. As in Kentucky, participation was least among the very segments of the population most in need of the program—those of lowest income and the older age categories.

These studies will doubtless be useful to administrators of social security in pointing directions and magnitudes of their responsibilities. Even though participation had advanced quite remarkably during the first year and will continue to spread in succeeding years, the evidence of these studies is that effectiveness in participation is greatly hampered by lack of knowledge of the program. Being competently informed is directly associated with level of educational achievement; lack of competence reflects both the inability to absorb information and also the inability to distinguish between reliable and unreliable sources. Achieving competence in respect to social security requires generally three categories of knowledge: (1) the conditions of eligibility, (2) how the farm program and/or off-farm employment program might be adjusted to achieve eligibility, and (3) the rights of participants once their coverage has been established.

Achieving this level of competence will, according to the evidence of these surveys, be the easiest among full owners in younger age and higher income segments, but even here a job is yet to be done. At the other extreme, the initial advance beyond the frontier had scarcely been made, as indicated by the fact that 83 per cent of the Texas croppers were classified as having "little or no knowledge."

Extension of social security to agriculture is a major event in the history of United States social policy. It is a large step in dissolving the differentiation of farm people (which some, not including this reviewer, will regard as unfortunate). It is an instrumentality to achieve social competence and self-dependence; even those who lament the dissolution of agricultural differentiation will surely not deny themselves the opportunity to observe the growth of an insurance-based system of self-dependence.

The discharge of administrative obligations created by the 1954 OASI amendments and social science understanding, particularly in respect to elimination of rural poverty, both stand to gain from the Kentucky and Texas surveys.

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Fals Borda, Orlando, and Ernesto E. Vautier. *La vivienda tropical humeda: Sus aspectos sociales y físicos como se observan en el Choco, Colombia*. Bogotá: Centro Interamericano de Vivienda y Planeamiento, Informes Tecnicos No. 5; 1958. 18 pp.

In this study of housing in a tropical rain forest area of Colombia the authors present a careful and detailed analysis of the dwelling in terms of its primary, complementary, and collective functions.

Under primary functions are grouped shelter, lodging, privacy, storage,

and health and subsistence. Complementary functions include religion, work, aesthetics, recreation, education, and administration. Under the heading of collective functions are placed ecological patterns and social stratification. In this brief review mention of only a few points made by the authors is possible.

The dwelling under consideration is constructed out of vegetable materials, readily available in the area, the use of which is a cultural legacy from the Indian. Even joints are vegetable in open-country areas, lianas being used in place of nails, which are more commonly used in the towns. The dwelling constructed almost in its entirety of vegetable materials preponderates even in mining areas where stone is abundant and could be used for house construction.

The Chococoan house is characteristically palafittic. The elevation of the floor of the house is intended to prevent the too rapid decomposition of the wood by protecting it from humidity, and as a protection against flooding where necessary. It is considered unhealthy, especially for children, to build the floor next to the ground, although tile and cement floors, that are beyond the means of most of the population, are excepted.

An important point is made by the authors in commenting that according to international definitions of crowding (more than two persons per room) 53 per cent of the dwellings in the area are crowded. Nevertheless, the available open space that is not enclosed and that was not counted as a room for census purposes results in a much smaller degree of actual crowding than is indicated by census figures.

Since the social life of the region is dependent on river communications, houses are located along river banks, in some areas resulting in a fairly dense population. Generally, however, houses are distant from one another although located on the land cultivated by the owner or tenant, thus producing what the authors call a "scattered line" settlement pattern. The few towns and hamlets in the area, on the other hand, are judged to be true villages.

The introduction of zinc, the nail, and wire had, in the towns, produced a revolution in design and construction methods. The recent introduction of cement (with a fifty-year lag) is also bringing about changes in house construction. The influence on housing patterns of the European and American group living in one of the towns of the area has been negligible because of economic limitations applicable to most of the population. A modern workers' housing project was built by a mining company operating in the area, with the intention of selling the houses to the workers on a low-cost long-term installment basis. This project met with resistance, in part because it was construed as an attempt to restrict the personal liberty of the worker. Also he did not want to invest his money in an impersonal house that he had not even helped to build. Besides, it was more prestigious for him to own a house in his home village.

This bulletin is of more than passing interest. It is one of few studies of its kind, and the housing described and analyzed is used with but few variations by countless thousands of persons in tropical rain forest areas of Latin America.

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Freeman, Ruth Crawford, and Ruth E. Deacon. *Family Cash Living and Other Outlays as Related to Gross Cash Receipts for 48 Illinois Farm Families, 1938-1953*. Illinois Agr. Expt. Sta. Bull. 614; in co-operation with Cornell Univ. Agr. Expt. Sta., Urbana, July, 1957. 32 pp.

This bulletin approaches family money management from the standpoint of gross cash receipts. It is based on the accounts kept by 48 Illinois farm families continuously for 16 years from 1938 to 1953. The dollar and percentage relationships of total farm expenses, total cash living, and total investments to annual gross cash receipts over the 16 years were analyzed. Also the degree of variation from year to year in each of these items was studied, and the direction of change in gross cash receipts was compared with the direction of change in expenditures and investments.

Thirty of the farms were livestock farms, nine were grain farms, and nine were general. Gross cash receipts and farm expenses were greatest on livestock farms. The relative increase in receipts over the years was greatest on general farms.

Average outlays for family cash living were similar for the three types of farms, but there was a little more variation on general farms—from a low of \$1,019 in 1938 to a high of \$3,419 in 1951. The average for livestock farms was the most stable, varying from \$1,228 in 1938 to \$3,301 in 1949. For the 48 families, family cash living represented about 20 per cent of gross cash receipts.

Investments varied from year to year on all types of farms. Average amounts invested annually on general farms were somewhat more stable than on either livestock or grain farms. Investments on livestock farms averaged \$2,493 annually in comparison with \$1,822 on grain farms and \$1,602 on general farms.

Grain farms showed the greatest variation in proportions used for farm expenses, family cash living, and investments. Family cash living on grain farms ranged from 16 to 32 per cent; on livestock farms it ranged from 11 to 21 per cent; and on general farms it ranged from 20 to 33 per cent.

Comparisons according to the ages of the 30 livestock farm operators show that those under 40 years of age in 1938 had higher gross cash receipts and higher average expenditures for both farm and family living over the 16 years than the older operators.

Average gross cash receipts per family were three and a half times as great in the high year as in the low year, ranging from \$5,387 in 1938 to \$19,445 in 1951. In the next two years they decreased about \$1,000 each year. Both farm expenses and investments were four and a half times as high in the highest year as in the lowest year, and family cash living outlays were three times as high.

Family cash living expenses were more stable percentagewise than farm expenses or investments. The proportion of gross cash receipts spent for family cash living ranged from a high of 24 per cent in 1939 to a low of 12 per cent in 1943. The proportion allocated to family cash living expenses declined as gross cash receipts increased. The proportion of gross cash receipts used for farm expenses ranged from a low of 50 per cent in 1943 to a high of 72 per cent in 1951. Investments ranged from 10 to 31 per cent. Both farm expenses and investments varied most during the 1946-1949 period and least during the 1950-1953 period.

Declines in family living outlays corresponded less often with declines in gross cash receipts than did farm expenses and total investments. Increases in family cash living tended to correspond with increases in gross cash receipts. In each of the four periods family cash living increased in more than half of the record years when gross cash receipts increased.

Farm expenses tended to have the closest relationship to increase in gross cash receipts, and investments tended to correspond most closely to decreases in gross cash receipts.

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Hay, Donald G. *Enrollment in Voluntary Health Insurance in Rural Areas.* USDA Agr. Inf. Bull. 188; Washington, D.C.: Agricultural Marketing Service, April, 1958. 20 pp.

The purpose of this bulletin is to offer data on voluntary health insurance programs in rural areas and on trends in enrollment. This study shows that more families are enrolled in urban than in rural areas. Voluntary health insurance is available in rural areas through three means: (1) nonprofit agencies, including Blue Cross, (2) insurance companies, and (3) independent plans such as those developed by industry and by consumer co-operatives. Slightly more than one-half of the farm families of the United States had one or more members covered by some health insurance in 1955. The North had the highest proportion, followed by the West, and the South had the lowest. Nearly a fifth of all farm families in the United States were enrolled in a health insurance policy carried in connection with off-farm employment.

Among the geographical divisions, the New England and Middle Atlantic states plus Delaware and Maryland had the largest proportion (67.6 per cent) of farm-operator families enrolled in some form of health insurance. The West South Central states had the lowest proportion enrolled with 43.1 per cent.

At the end of 1956, it was estimated that seven-tenths of the total civilian population of the United States carried voluntary health insurance toward hospital care, three-fifths for surgical care, and two-fifths health insurance for other health care expenses. In states with less than 20 per cent rural population, three-fourths of the total population had insurance for hospital services at the end of 1956, while in states whose population was 60 per cent or more rural, only about one-half of the population had hospital coverage.

This report shows that of the farm-operator families that carried any form of health insurance, including prepayment for health care and/or protection for income loss due to sickness or accident, 7 out of 10 were enrolled with an insurance company and 4 out of 10 were with either a nonprofit agency or an independent plan or both. A tenth of the enrolled families carried insurance with both commercial and nonprofit carriers. Of the farm operators that carried insurance for health care services only, with no protection for income loss due to sickness or accident, three out of five were enrolled with either a nonprofit agency or an independent plan or with both, and about half carried such insurance with an insurance company. Only a tenth of the families carried insurance with more than one type of carrier.



Three general types of organizations serve as a basis for rural group enrollment: (1) locality organizations, including community clubs; (2) formal organizations, such as farm organizations, co-operatives, and civic groups; and (3) specialized health organizations. The organization used most frequently as a basis for rural group enrollment is the formal type—farm organization, co-operative, educational, and civic groups. More favorable premium rates and benefit structure are usually provided to members of groups than to persons enrolled on an individual basis. The author has presented some needed and useful data in the study of rural health problems.

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Hirsch, G. P., and K. E. Hunt. *British Agriculture: Its Structure and Organization*. London: Headley Brothers, 1957. 64 pp.

In this booklet the authors, who are associated with the Agricultural Economics Research Institute, University of Oxford, are concerned primarily with the economic and physical aspects of the business of farming in Great Britain. The booklet was distributed by Evans Brothers Limited for the National Federation of Young Farmers' Clubs.

The authors recognize the important fact that the farmer has two major functions to perform: he is head of a complex farm business enterprise and head of the farm family. In analyzing the farm business function, the authors consider the following aspects: resources available to agriculture in the form of land, labor, and capital; the supply and demand for agricultural products over a period of years; the effect of governmental controls, imports, war, and postwar developments on prices of agricultural products; the formal organization structure for administering education, research, and advice pertaining to agriculture; and the national and international setting of agriculture in Great Britain and its role in the changing world.

The authors have analyzed the resources and accomplishments of the one million people in Great Britain employed in agriculture—about 300,000 farmers and 700,000 farm workers—out of a total population of 23 million as of 1951. Of the total land area of 56 million acres in 1955, about 17 million acres were under crop and rotational grassland and 12 million acres in permanent grassland, making a total cultivated area of 29 million acres.

Present farm income is about 300 million pounds as compared to prewar income of about 150-200 million pounds. Farmers receive their money from three primary sources: (1) direct sale of farm commodities in the market place, (2) supplementary payments by the government to effect price guarantees, and (3) production guarantees. The authors report that minimum wages for farm workers are fixed by the Agricultural Wages Board. . . . Between 1938 and 1955, wage rates generally had risen to about two and a half times the pre-war level; farm wage rates rose nearly three and a half times. In spite of this bigger proportionate increase, farm workers were still, in cash terms, taking home only about two-thirds the wages in manufacturing industry.

The treatise on government's role in effecting minimum efficiency of production in agriculture through grants, subsidies, price fixing, and various other controls is most informative, as is the plan of administration of agricultural



programs from the time of the "Board or Society for the Encouragement of Agricultural and Internal Improvement" by Royal Charter in 1792 to the present "Ministry of Agriculture, Fisheries and Food." The excellent discussion of the organization for research, apprenticeship, college and university training, and advice to farmers and farm workers enables the reader to contrast the British system with our Land Grant Colleges and the U.S. Department of Agriculture.

Both the professional and lay person directly or indirectly concerned with teaching, research, and extension in agriculture will find this concise, well-written, and effectively illustrated research publication on British agriculture to be a "must" on one's reading list.

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Hoeflin, Ruth. *Transition Adjustment of Rural and Urban Youth from Home to College*. Ohio Agr. Expt. Sta. Res. Bull. 797; Wooster, Nov., 1957. 54 pp.

This study is a four-year project involving parents and college youths during the launching stage of the family when young adults begin a new kind of life for themselves.

The study involved 567 families who had sons or daughters entering Ohio State University as freshmen in the fall of 1952. The freshmen filled out several questionnaires and check lists. At the same time the parents of the freshmen were sent questionnaires, and 60 per cent mailed in returns. During their junior year, 122 of the original 567 students were further tested, and 62 came in for individual conferences. During the junior year, the parents of these students were again contacted, and 188 families responded to another mailed questionnaire. In addition, 20 families were personally interviewed.

Comparisons in this study were threefold: men-women, rural-urban, and student-parent. The students and parents were asked about seven conflict areas with reference to their senior year in high school. There was some disagreement in parents' and students' responses. More parents than students reported that the curfew hour and other decisions were made jointly by both parents and students, while more students than parents reported this as a student decision. This suggests satisfaction on the part of both students and parents—the student feels he makes his own decisions, whereas the parent feels decisions are made jointly. More parents than students reported that the students helped with work around the home, whereas students were more likely to report doing only their own work around home or no work at all.

While the students were juniors, the parents were mailed a list of 20 probable changes occurring in young adults and were asked to check the ones seen in their children. The five most frequently checked were "makes more decisions without parent help," "interested in going to new places," "learns new rules of etiquette," "shows more appreciation of parent," and "wishes to be independent of family finances."

Adjustment to college was measured the second quarter of the freshman year by use of the Rotter Incomplete Sentence Blank filled out by 290 of the

original group; 57 per cent had scores indicating satisfactory adjustment.

During their junior year the urban students and women students were more active in extracurricular activities than either the rural or male group. Differences in participation seemed to depend as much on the interests, desires, and personality of the student as on any other factors.

One comment which comes to mind when reading this bulletin is that nothing is said about the students and parents who did not respond. The students who took the Rotter Test and those who came in during their junior year to fill out further questionnaires were only a portion of the original group. Only 60 per cent of the parents responded to the first questionnaire and still fewer responded to the second questionnaire. Some bias could result if the nonrespondents in both the parent and student groups followed some particular pattern. For instance, the students who filled out the Rotter Test may have been having problems in adjusting to college, and hoped to get assistance with their problems.

The author points out that this bulletin is only a summary report and does not begin to cover the data available in the study. Further cross tabulations would certainly be warranted with data which carries over several years' time. Some before-after comparisons might have yielded further information concerning the adjustments of both parents and students during this launching stage of family life.

The parent-student comparisons were particularly interesting and suggest several hypotheses which warrant further testing.

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Moss, J. Joel. *West Virginia and Her Population*. West Virginia Agr. Expt. Sta. Bull. 403; Morgantown, June, 1957. 51 pp.

Changes in population numbers and characteristics in West Virginia between 1940 and 1950 are described in this clearly written report. Like many states where the population is declining, or increasing at a very slow rate, the proportion of older people is growing and the sex ratio is showing a predominance of females, except for the rural-farm group.

The fertility rate increase from 401.3 in 1940 to 479.0 in 1950 was most noticeable in the cities of 10,000 and over. Contrary to general forecasts, however, the author's analysis predicts a decline in the school-age population from the 1940 level.

Both marriage and divorce rates increased. The urban group has the highest divorce rate. Rural farm males are the slowest to marry, but they remain married longer. There is no one age group in which divorces are concentrated.

In 1950, 79 per cent of the labor force was male. There was a 3 per cent increase in the female labor force between 1940 and 1950, the majority of whom came from the urban residence group. Although mining is the leading industry in the state, its prominence is declining, as manufacturing and wholesale and retail trade employ increasing proportions of the labor force.

Family income averaged lower for the state than for the United States. Urban median income is highest, followed by rural nonfarm, then rural farm,

which was \$1,581, compared with \$1,729 for the United States. The size of median income was in proportion to the amount of population loss, supporting the hypothesis that the smaller the median income in any county in 1940 the greater would be the loss of the 1950 potential population.

Out-migration is predominantly by the males during their most productive years. Therefore, without new industrial developments, the population decreases will continue, resulting in serious inroads in the state's social and economic framework.

The regional changes which are occurring in population numbers due to technological developments in agriculture, industry, and transportation will tend to reduce differences in income, occupation, and age distribution between states and between economic regions, but in the process existing institutions will be upset. For states such as West Virginia, where population is declining or remaining relatively constant, the reallocation of human resources (reflecting as it does changing economic opportunities) will necessitate greater emphasis (by local governments) on the dynamics of institutional requirements. School districts, roads, communications, tax bases, and electoral districts are parts of the institutional framework of every state, which will require increasing attention and modification as population numbers, characteristics, and location change.

Studies like this one are valuable in helping policy makers and state legislatures become aware of problems and needed changes.

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Slocum, Walter L., Owen L. Brough, Jr., and Murray A. Straus. *Extension Contacts, Selected Characteristics, Practices and Attitudes of Washington Farm Families*. Washington Agr. Expt. Sta. Bull. 584; Pullman, April, 1958. 37 pp.

This bulletin is a comparative analysis of families having little or no contact with the Extension Service and of "high contact" families. Four categories of contact with extension are used, based on a weighted score for each farm operator and homemaker, and comparison is made concerning selected characteristics, practices, attitudes, and patterns of living of a sample of 314 Washington farm families. Although this sample is admittedly small, it represents a circumspect selection of the state's farmers, and the report gives a thorough description of factors associated with the level of contacts with extension.

Included in the study are descriptions of farms and family characteristics of the informants, economic status, patterns of social participation, selected farm and home practices, and selected attitudes of the informants as related to level of contacts with extension. The authors then pinpoint the major findings, compare them with findings in other such studies, and conclude with some of the implications. For persons interested in methodology there is a short but interesting treatment of how the study was made. Data are well supplemented with tables and charts.

The authors found an association between a low level of extension contacts

and operators in the following categories: those who own less land, who are primarily dependent upon nonfarm employment, who check prices of farm products less frequently, who are less likely to carry farm liability insurance, who are less likely to keep or use farm records, who are less likely to take farm magazines, and who are less receptive to change, as well as those with less education, no children at home, fewer assets, lower net worth, less debt, less machinery, fewer farm expenses, lower agricultural income, and less contact with bankers and commercial companies. Where both operators and homemakers had a low level of extension contacts, they also were less active in formal groups, organizations, and public affairs in their communities.

Some factors were not associated with the level of extension contacts: age, number of children, size of farm, housing, extent of liking farming and rural life, and, oddly enough, level of performance on the test of knowledge of selected farming and homemaking practices.

The authors logically use "knowledge tests" rather than "adoption of practice" to measure extent to which extension teachings are being learned. They found no statistically significant differences concerning knowledge of extension teachings among farmers and homemakers due to different levels of contact with extension. This seems inconsistent with findings that "low contact" families were found to be less educated and to have less contacts with other traditional sources of farm information. It appears that the knowledge tests used need some refinement.

The authors suggest that the differential attributes related to levels of extension contacts should provide clues for new methods of reaching "low contact" farm families. In any case, the job is not being accomplished with existing methods.

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## News Notes

### COLLEGES AND UNIVERSITIES

#### *Louisiana State University*

Homer L. Hitt resigned as head of the Departments of Sociology and Rural Sociology and as associate dean of the Graduate School to become dean of Louisiana State University at New Orleans, Louisiana.

Roland J. Pellegrin has been appointed chairman of the Department of Sociology and head of the Department of Rural Sociology.

On April 28-29, 1958, the first annual "Louisiana Conference on the Aging" was held on the campus. This conference was sponsored jointly by the Department of Sociology and the Louisiana Commission on the Aging. Outstanding scholars in gerontology were brought to the campus for the two-day session. Paul H. Price served as conference director.

Alvin L. Bertrand, who was on leave of absence serving as head, Levels of Living Section, Farm Population and Rural Life Branch, Agricultural Marketing Service, U.S. Department of Agriculture, Washington, D.C., for eighteen months, returned to the University at the end of June, 1958.

Rudolf Heberle has been elected a member of the executive committee of the American Studies Association of the Lower Mississippi.

Paul H. Price has been promoted to professor of sociology and rural sociology.

Fredrick L. Bates, who joined the faculty last year as visiting associate professor of sociology and rural sociology, has been named associate professor of sociology.

Walfrid J. Jokinen has been appointed assistant dean of the Graduate School and assistant professor of sociology.

Audrey F. Borenstein has been appointed instructor in sociology.

#### *Mississippi State University*

Evan T. Peterson has joined the staff of the Division of Sociology and Rural Life, Mississippi State University, as assistant sociologist and assistant professor of sociology and rural life. In addition to teaching social psychology, he will be doing research on the USPHS project on Hospital Community Relations. Peterson comes from the University of Michigan and formerly taught at Brigham Young University, Provo, Utah.

Leslie J. Silverman has joined the staff as assistant sociologist. He will be working with the Alcorn County Studies. He was instructor at the University



of Wisconsin Extension Division, Green Bay, Wisconsin.

Andrew W. Baird returned to State College after 16 months' field work in connection with the Alcorn County project.

Anthony Ostric resigned July 1, 1958, to accept a position at Rockhurst College, Kansas City, Missouri.

Willie Mae Gillis resigned July 1, 1958, to continue graduate work in psychology at the University of Colorado.

#### *University of Missouri*

The Department of Rural Sociology has received a grant from the National Institutes of Health to study "Human Factors Related to Farm Accidents in Missouri." The original grant is for two years. During this time an attempt will be made to determine the incidence of disabling accidents and the conditions that contribute to them. Robert L. McNamara will direct the project.

The Department of Rural Sociology has undertaken a project on agricultural communication to assess the literature in the area of diffusion of farm information. The project will be twofold: (1) to abstract the published research relating to the diffusion and use of farm information; (2) to prepare an analytical summary manuscript of the publications. Professor Herbert F. Lionberger will direct the project.

Charles E. Lively read a paper, "The Church in the Changing Rural Community," at the Town-Country Conference for Laymen and Pastors held at Kansas State College in January. He also presented a paper at the annual meeting of the North American Wildlife Conference in St. Louis in March. This paper, titled "Whither Conservation Education in American Colleges," was based on his book, "Conservation Education in American Colleges" (with Jack Preiss), published by the Ronald Press in November, 1957.

Robert L. McNamara is president of the Missouri Sociological Society and president-elect of the Missouri Public Health Association.

Promotions during the last year were Herbert F. Lionberger to professor and Cecil L. Gregory to assistant professor.

Herbert F. Lionberger has been appointed a research consultant to TVA on a part-time basis.

Cecil L. Gregory of the Rural Sociology Department and Hugu D. Brunk of the Mathematics Department conducted a seminar for staff members and graduate students of the University on the use and programing of electronic computers. About seventy-five persons participated in the six seminar sessions.

John S. Holik is continuing his work with the Planned Progress Community program. He will participate in workshops for local leaders and supervise the judging in the Planned Progress competition. The program is sponsored by the Union Electric Company.

#### *Southern Methodist University*

Walter T. Watson was elected president of the Southwestern Social Science Association at its annual meeting in Dallas in April. Twice previously, he has served as sociology chairman of the nine-section Association.

Morton B. King, Jr., currently visiting professor at Northwestern, has accepted a professorship at Southern Methodist University to begin in the fall.



Bruce M. Pringle, associate professor, recently presented a paper at the Southwestern Social Science Association entitled "The Present State of Theory Concerning Communication Patterns in Small Groups." Joseph W. Hart presented a paper "Rejection Patterns and Group Survivals" at the same meeting.

M. La Vern Norris, instructor, read papers at the annual meeting of the American Sociological Society in Seattle and the National Conference on Family Relations at Eugene.

#### *State College of Washington*

Walter L. Slocum has accepted a two-year assignment as professor of sociology at the University of the Punjab, Lahore, Pakistan, beginning in September, 1958. The assignment is under the ICA-sponsored contract between the State College of Washington and the University of the Punjab. John B. Edlefsen, associate professor of sociology, will serve as acting chairman and acting associate rural sociologist during the period. Edlefsen initiated the program in sociology and rural sociology at the University of the Punjab in 1954. He returned to the State College of Washington in the fall of 1957.

#### *Washington University, St. Louis*

Stuart A. Queen, member of the Department for 26 years and its chairman for 24 years, one-time president of the American Sociological Society, author of numerous books and articles, was appointed professor emeritus in June. In September he will become a visiting professor at the University of Wichita.

David Pittman from Rochester (Ph.D., Chicago) and Albert Wessen from the University of Vermont (Ph.D., Yale) will join the Department in September as assistant professors; they are appointed also to the Social Science Institute and the Department of Psychiatry. They will specialize in the sociology of health and medicine and, in Pittman's case, deviant behavior as well. Wessen will also be on the staff of the Jewish Hospital in St. Louis.

Jules Henry is participating in a study of geriatric nursing as consultant to the University's School of Nursing. The U.S. Public Health Service is supporting the research. During the summer, Henry continued his work with disturbed children at the Sonia Shankman Orthogenic School of the University of Chicago. In October, he will go to Copenhagen as a U.S. Delegate to the WHO Conference on Mental Health of Children.

Paul J. Campisi and Robert L. Hamblin are participating in a study of the adjustment of rural migrants in the urban area on a grant by the National Conference of Christians and Jews. Dr. Hamblin is also research director of a study investigating factors of conformity and nonconformity of adolescents. This work is a project of the Social Science Institute with funds from the American Social Hygiene Association. In July, Dr. Hamblin attended the Conference on Simulation of Cognitive Processes at Santa Monica, California, which is supported by funds of the Social Science Research Council.

Joseph A. Kahl spent the summer as a visiting professor at Mexico City College and continued his research in a Mexican factory on the social effects of industrialization.

Ralph C. Patrick was on leave in 1957-1958 to direct production of 36 television programs on values in American life for the Educational Television

and Radio Center. The production used KETC, the St. Louis educational station. Patrick will become associate professor in the School of Public Health, University of North Carolina, in September.

David B. Carpenter is working on a comparative study of urbanization, with special emphasis on Japan-U.S. contrasts.

Robert J. Miller has prepared a monograph, "Sherpa Tendencies toward Nationalism," on a grant from the Graduate School of Arts and Sciences.

N. J. Demerath was a consultant for World Health Organization's Pan-American Sanitary Bureau on the administration of social research in international health programs. He was in South America for six weeks during the summer. Demerath served as president of the Society for Applied Anthropology in 1957-1958.

Stanley Spector has been appointed associate professor of Far Eastern Affairs. In June he began a 15 months' leave of absence on a grant from the Social Science Research Council. He will study the role of intellectuals in the political life of Singapore and Malaya.

## ANNOUNCEMENTS

The twentieth annual meeting of the Ohio Valley Sociological Society was held on May 1-2, 1958, in Cincinnati, Ohio. Host for the meeting was the Department of Sociology, University of Cincinnati.

The following were elected officers for 1958-59:

President	Clifford Kirkpatrick Indiana University
Vice-President	Howard Rowland University of Pittsburgh
Secretary-Treasurer	Marvin B. Sussman Western Reserve University
Representative of the Society to the Council of the American Sociological Society	Raymond F. Sletto Ohio State University
Editor of the Ohio Valley Sociologist	Robert P. Bullock Ohio State University

The 1959 meeting (the twenty-first) of the Society will be held in Columbus, Ohio.

The American Foundation for the Blind, Inc., announces the appointment of Frederick J. Ferris to its staff, effective June 13, 1958. Ferris will serve as social planning consultant for a one-year period, during which time he will have primary responsibility for summarizing the community surveys carried out by the Foundation during the past four years. The Foundation itself is a private, national, nonprofit agency for research, education, and service, which acts as a clearing-house for problems concerning America's estimated 340,000 blind people.

A new sociological journal, *Boletim de Centro de Estudos e Pesquisas de Sociologia*, began publication with Volume 1, Number 1, in April, 1958. This journal is being published under the direction of the Departamento de

Sociologia da Faculdade de Filosofia, Ciências e Letras de São Bento de Pontifícia Universidade Católica de São Paulo. Three issues per year are planned, in April, August, and December. Annual subscriptions are Cr \$80.00, Brazilian currency, or the equivalent in other currency.

The Institute of Higher Education of Teachers College, Columbia University, has had prepared a series of bibliographies in conjunction with a Study of Liberal Education and the Professions. Dr. Wayne D. Rasmussen, Secretary of the Agricultural History Society, has compiled a bibliography entitled "Liberal Education and Agriculture." There are additional bibliographies for law, medicine, dentistry, journalism, education, nursing, pharmacy, engineering, music, and business administration. Mimeographed copies are available to the readers of this journal free of charge as long as the supply lasts. Write Charles H. Russell, Assistant to the Executive Officer, Institute of Higher Education, Teachers College, Columbia University, New York 27, New York.

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